


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Flying Dutchman 5-17C4					
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT ALTAMONT					
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME					
6. NAME OF OPERATOR EP ENERGY E&P COMPANY, L.P.						7. OPERATOR PHONE 713 997-5038					
8. ADDRESS OF OPERATOR 1001 Louisiana, Houston, TX, 77002						9. OPERATOR E-MAIL maria.gomez@epenergy.com					
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Fee			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>					
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Robert Nielson & Pamela Nielson Trusts						14. SURFACE OWNER PHONE (if box 12 = 'fee') 435-353-4706					
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 4094 W. 5625 N., Roosevelt, UT 84066						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')					
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP		RANGE	MERIDIAN		
LOCATION AT SURFACE		1065 FSL 1242 FEL		SESE	17	3.0 S		4.0 W	U		
Top of Uppermost Producing Zone		1065 FSL 1242 FEL		SESE	17	3.0 S		4.0 W	U		
At Total Depth		1065 FSL 1242 FEL		SESE	17	3.0 S		4.0 W	U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1065			23. NUMBER OF ACRES IN DRILLING UNIT 640					
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2000			26. PROPOSED DEPTH MD: 12300 TVD: 12300					
27. ELEVATION - GROUND LEVEL 5877			28. BOND NUMBER 400JU0708			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City					
Hole, Casing, and Cement Information											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight	
Cond	17.5	13.375	0 - 600	54.5	J-55 ST&C	9.0	Class G	758	1.15	15.8	
Surf	12.25	9.625	0 - 2000	40.0	N-80 LT&C	9.2	Type V	224	3.18	11.0	
							Class G	195	1.3	14.3	
I1	8.75	7	0 - 9000	29.0	HCP-110 LT&C	10.1	Class G	440	1.91	12.5	
							Class G	248	1.64	13.0	
L1	6.125	5	8800 - 12300	18.0	HCP-110 LT&C	12.6	Class G	207	1.47	14.2	
ATTACHMENTS											
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES											
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN						
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER						
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP						
NAME Maria S. Gomez			TITLE Principal Regulatory Analyst			PHONE 713 997-5038					
SIGNATURE			DATE 06/25/2014			EMAIL maria.gomez@epenergy.com					
API NUMBER ASSIGNED 43013530130000			APPROVAL <div style="text-align: center;">  Permit Manager </div>								

RECEIVED: September 15, 2014

**Flying Dutchman 5-17C4
Sec. 17, T3S, R4W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	4,094' TVD
Green River (GRTN1)	4,794' TVD
Mahogany Bench	5,594' TVD
L. Green River	7,054' TVD
Wasatch	8,904' TVD
T.D. (Permit)	12,300' TVD

2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,094' MD / TVD
	Green River (GRTN1)	4,794' MD / TVD
	Mahogany Bench	5,594' MD / TVD
Oil	L. Green River	7,054' MD / TVD
Oil	Wasatch	8,904' MD / TVD

3. Pressure Control Equipment: (Schematic Attached)

A 4.5" by 20.0" rotating head on structural pipe from surface to 600' MD/TVD. A 4.5" by 13-3/8" Diverter Stack w/ rotating head from 600' MD/TVD to 2,000' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 2,000' MD/TVD to 9,000' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,000' MD/TVD to TD (12,300' MD/TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing

will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

Statement on Accumulator System and Location of Hydraulic Controls:

Precision Rig # 406 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

Auxiliary Equipment:

- A) Pason Gas Monitoring 600' - TD
- B) Mud logger with gas monitor – 2,000' to TD (12,300' MD/TVD)
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

4. Proposed Casing & Cementing Program:

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

5. Drilling Fluids Program:

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	WBM	9.0 – 9.2
Intermediate	WBM	9.3 – 10.1
Production	WBM	11.0 – 12.6

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD (12,300' MD/TVD)

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface casing shoe to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,300' TVD equals approximately 8,059 psi. This is calculated based on a 0.6552 psi/ft gradient (12.6 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 5,353 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,000' TVD = 7,200 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 5,353 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**

MECHANICAL

13 3/8" 54.5# J-55 STC

9-5/8" 40# N-80 LTC

12-1/4"

9-5/8" 40# N-80 LTC

9.0 - 9.2 ppg
WBM

TOC @ 1500

FIT to 0.8 psi/ft

8-3/4"

7" 29# HCP-110 LTC

9.3 - 10.1 ppg
WBM

TOL @ 8800

TOC @ 8800

FIT to 0.8 psi

6-1/8"

5" 18# HCP-110 STL

11.0 - 12.6 ppg
WBM

RECEIVED: June 25, 2014

DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	600	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	9000	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8800	12300	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		600	Class G + 3% CACL2	758	100%	15.8 ppg	1.15
SURFACE	Lead	1,500	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-AIR 5000	224	75%	11.0 ppg	3.18
	Tail	500	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	195	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	5,100	EXTENDACEM SYSTEM: Class G Cement + 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.75% HR-5 + 0.3% Super CBL + 0.2% Halad-322 + 0.125 lb/sk Poly-E-Flake	440	10%	12.5 ppg	1.91
	Tail	2,400	EXPANDACEM SYSTEM: Class G Cement + 4% Bentonite + 0.25 Poly-E-Flake + 0.1% Halad-413 + 5 lb/sk Silicalite Compacted + 0.15% SA-1015 + 0.3% HR-5	248	10%	13.0 ppg	1.64
PRODUCTION LINER		3,500	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	207	25%	14.2 ppg	1.47

FLOAT EQUIPMENT & CENTRALIZERS	
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing.
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar & Stage collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 7,000'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Brad MacAfee 713-997-6383

MANAGER: Bob Dodd

EP ENERGY E&P COMPANY, L.P.
FLYING DUTCHMAN 5-17C4
SECTION 17, T3S, R4W, U.S.B.&M.

PROCEED NORTH ON STATE ROAD 87 FROM THE INTERSECTION OF STATE ROAD 87 WITH US HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 3.54 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL EASTERLY ON A COUNTY ROAD 1.83 MILES TO THE BEGINNING OF THE ACCESS ROAD;

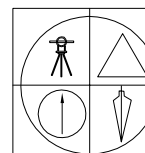
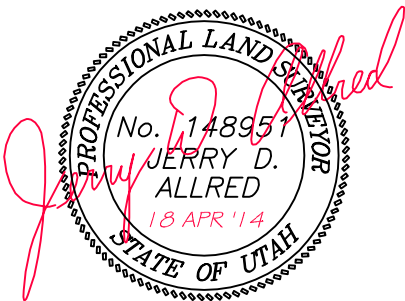
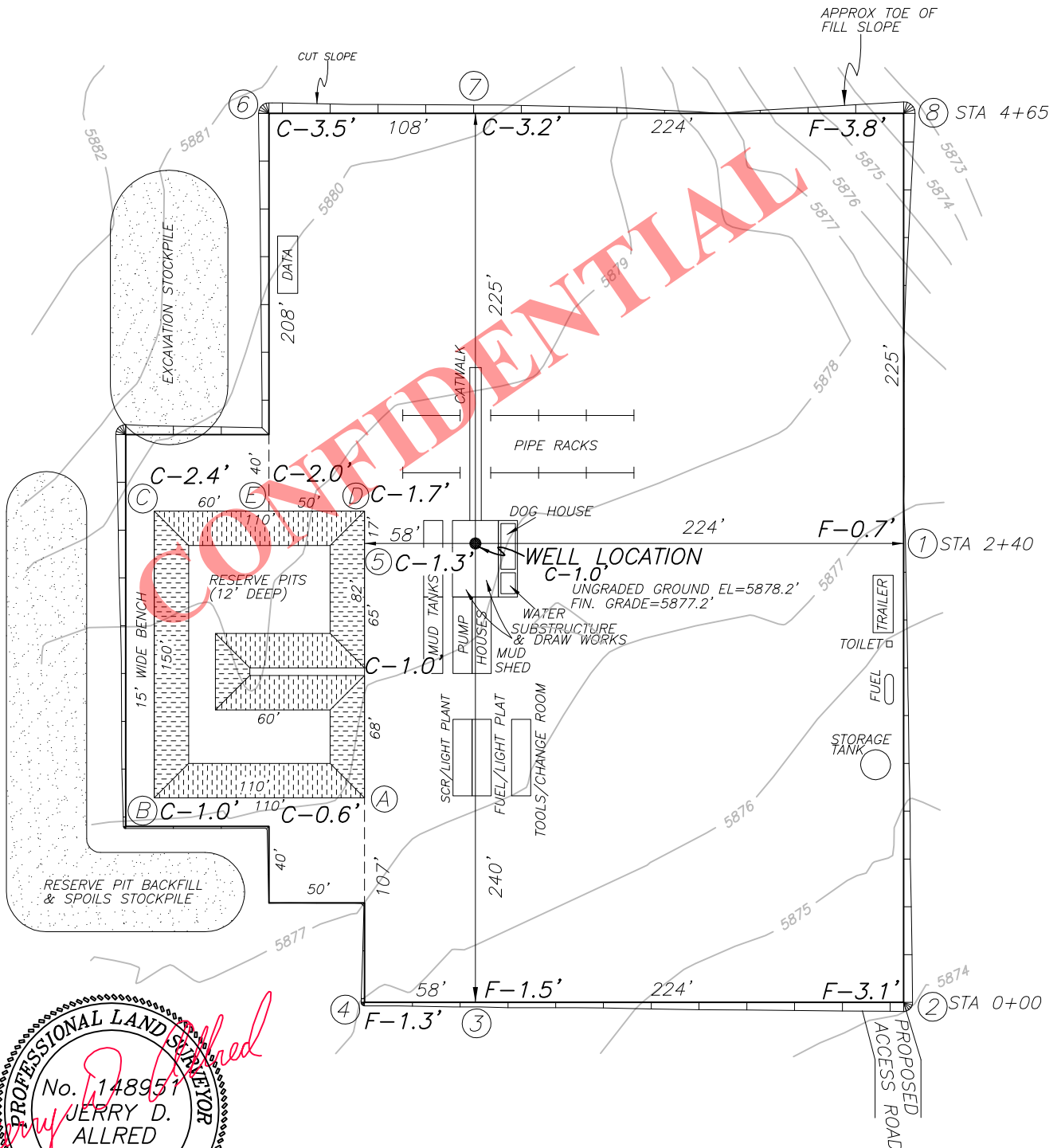
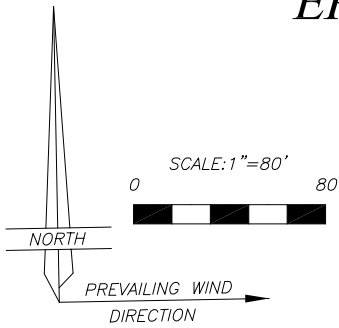
TURN LEFT FOLLOWING ROAD FLAGS NORTHERLY 0.15 MILES TO THE PROPOSED LOCATION;

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 5.52 MILES.

CONFIDENTIAL

EP ENERGY E&P COMPANY, L.P.

LOCATION LAYOUT FOR
FLYING DUTCHMAN 5-17C4
SECTION 17, T3S, R4W, U.S.B.&M.
1065' FSL, 1242' FEL

FIGURE #1

JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975
DUCHESTER, UTAH 84021
(435) 738-5352

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01-128-521

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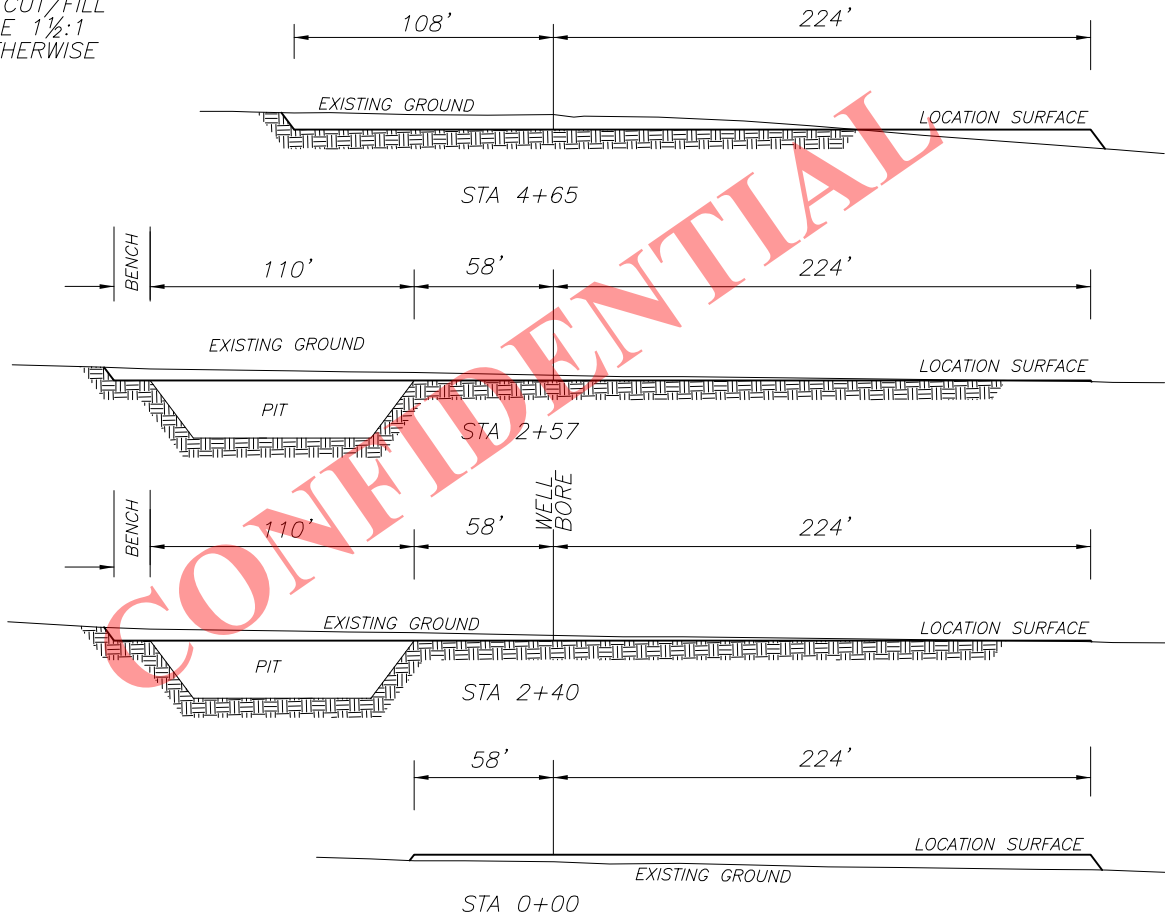
EP ENERGY E&P COMPANY, L.P.

LOCATION LAYOUT FOR
FLYING DUTCHMAN 5-17C4
SECTION 17, T3S, R4W, U.S.B.&M.
1065' FSL, 1242' FEL

FIGURE #2

1"=40'
X-SECTION
SCALE
1"=80'

NOTE: ALL CUT/FILL
SLOPES ARE 1½:1
UNLESS OTHERWISE
NOTED



APPROXIMATE YARDAGES

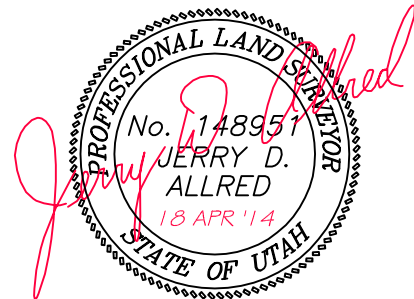
TOTAL CUT (INCLUDING PIT) = 11,922 CU. YDS.

PIT CUT = 4955 CU. YDS.
TOPSOIL STRIPPING: (6") = 3190 CU. YDS.
REMAINING LOCATION CUT = 3777 CU. YDS

TOTAL FILL = 3627 CU. YDS.

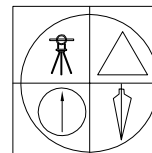
LOCATION SURFACE GRAVEL=2105 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=202 CU. YDS.



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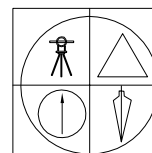
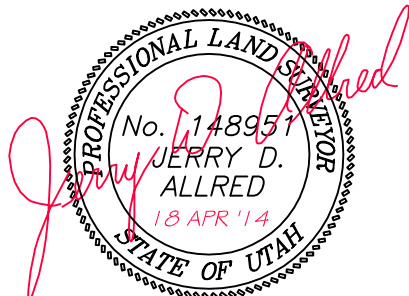
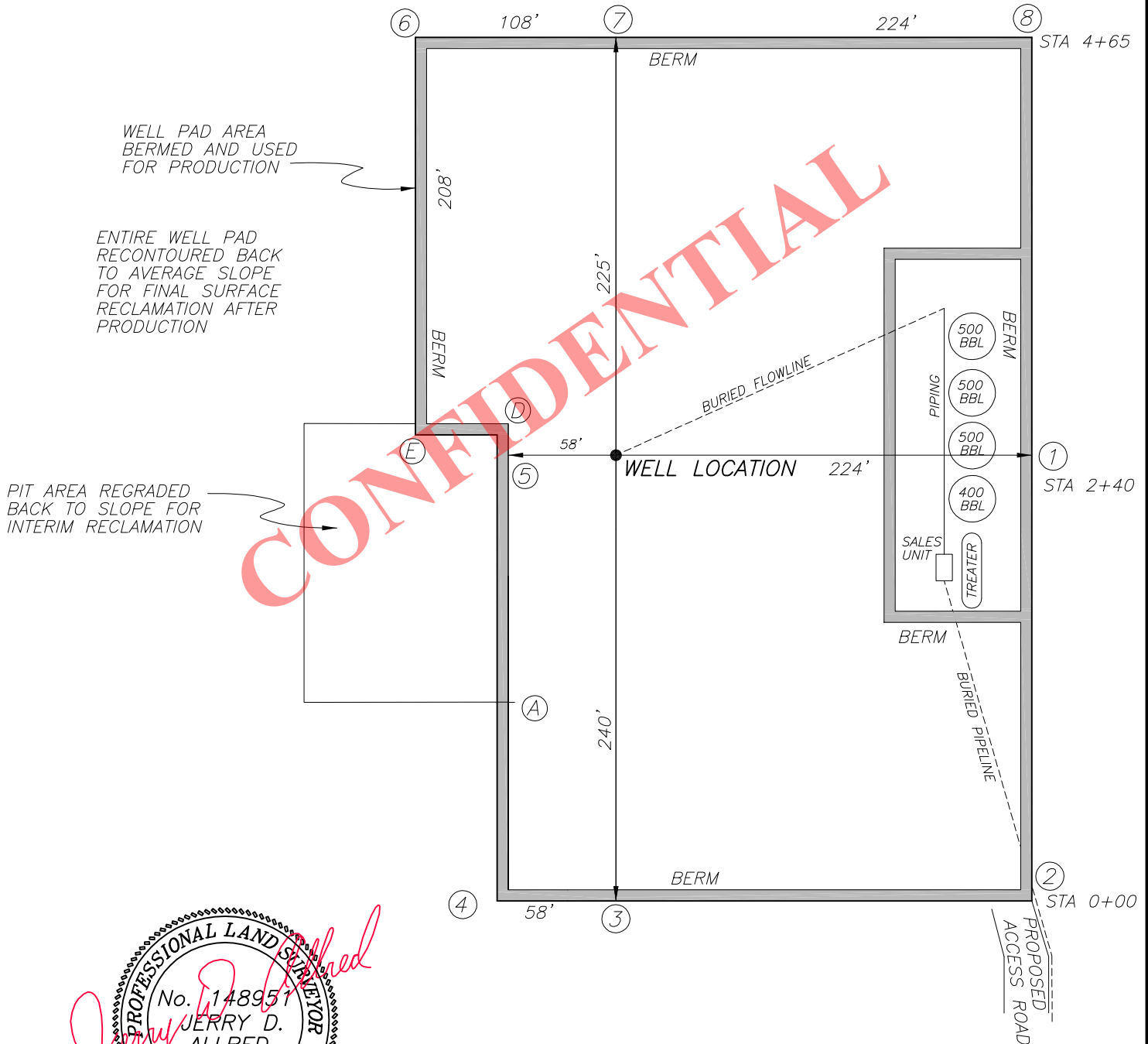
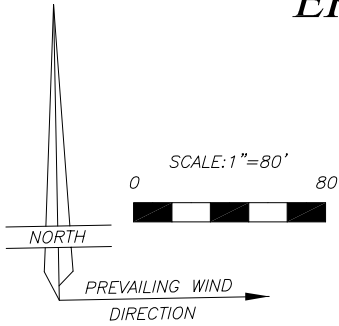
JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

RECEIVED: June 25, 2014

EP ENERGY E&P COMPANY, L.P.

LOCATION LAYOUT FOR
 FLYING DUTCHMAN 5-17C4
 SECTION 17, T3S, R4W, U.S.B.&M.
 1065' FSL, 1242' FEL

FIGURE #3

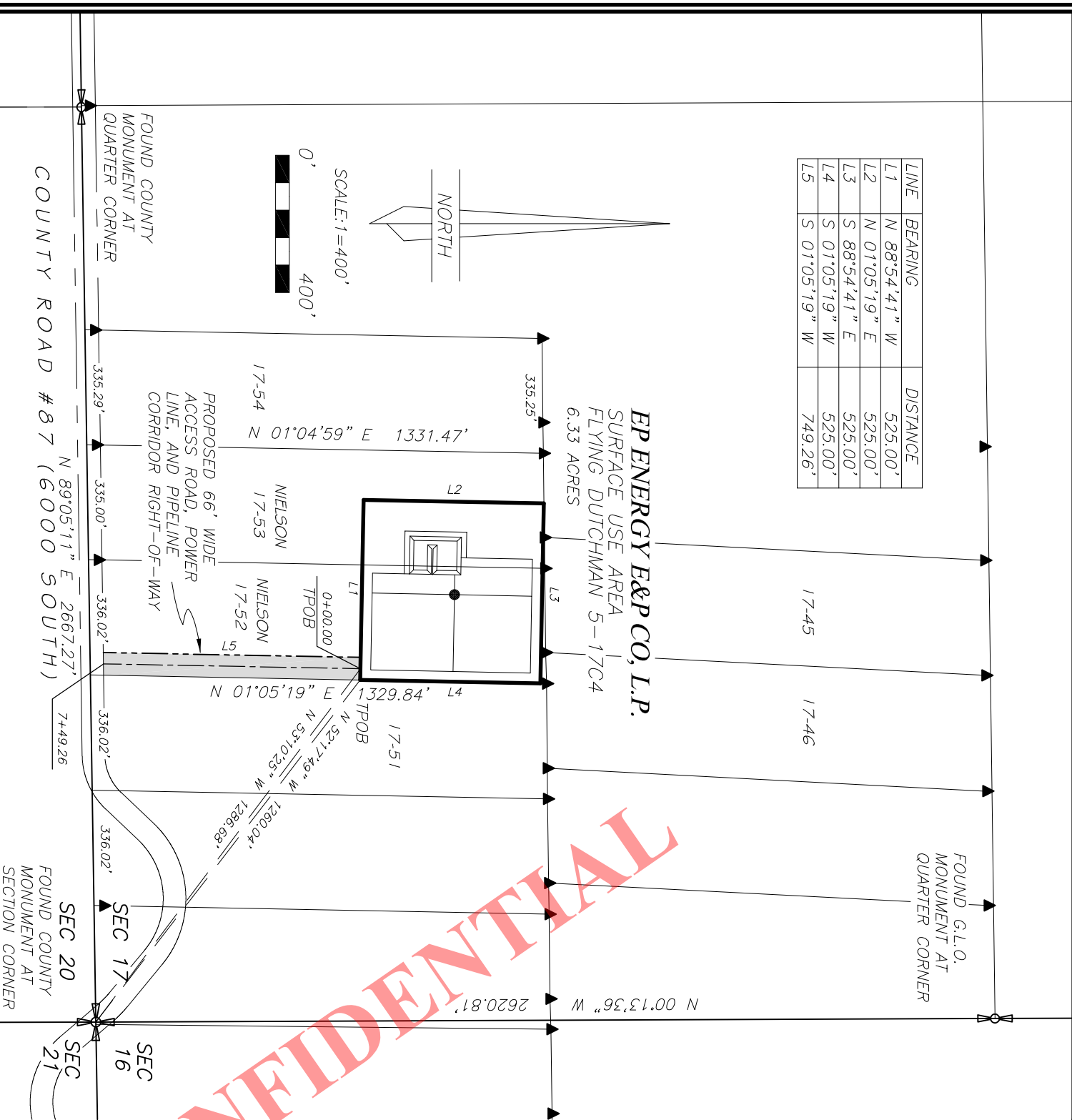
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LEGEND AND NOTES

USE AREA BOUNDARY

ACCESS ROAD, POWER LINE, AND PIPELINE CORRIDOR RIGHT-OF-WAY DESCRIPTION

A 66 feet wide access road, power line, and pipeline corridor right-of-way over portions of Section 17 Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of said right-of-way being further described as follows:

Commencing at the Southeast Corner of said Section 17;

Thence North 53°10'25" West 1286.68 feet to the TRUE POINT OF BEGINNING, said point being on the South line of the EP Energy E&P, Co. Flying Dutchman 5-17C4 well location use area boundary;

Thence South 01°05'19" West 749.26 feet to the North line of the existing County Road.

Said right-of-way being 749.26 feet in length with the side lines being shortened or elongated to intersect said use area boundary and existing road right-of-way lines.

SURVEYOR'S CERTIFICATE

This is to certify that this plat was prepared from the field notes and electronic data collector files of an actual survey made by me, or under my personal supervision, of the use area and access road, power line, and pipeline corridor right-of-way shown herein, and that the monuments indicated were found or set during said survey, and that this plat accurately represents said survey to the best of my knowledge.

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

JERRY D. ALLRED, REGISTERED LAND SURVEYOR,
CERTIFICATE NO. 148951 (UTAH)

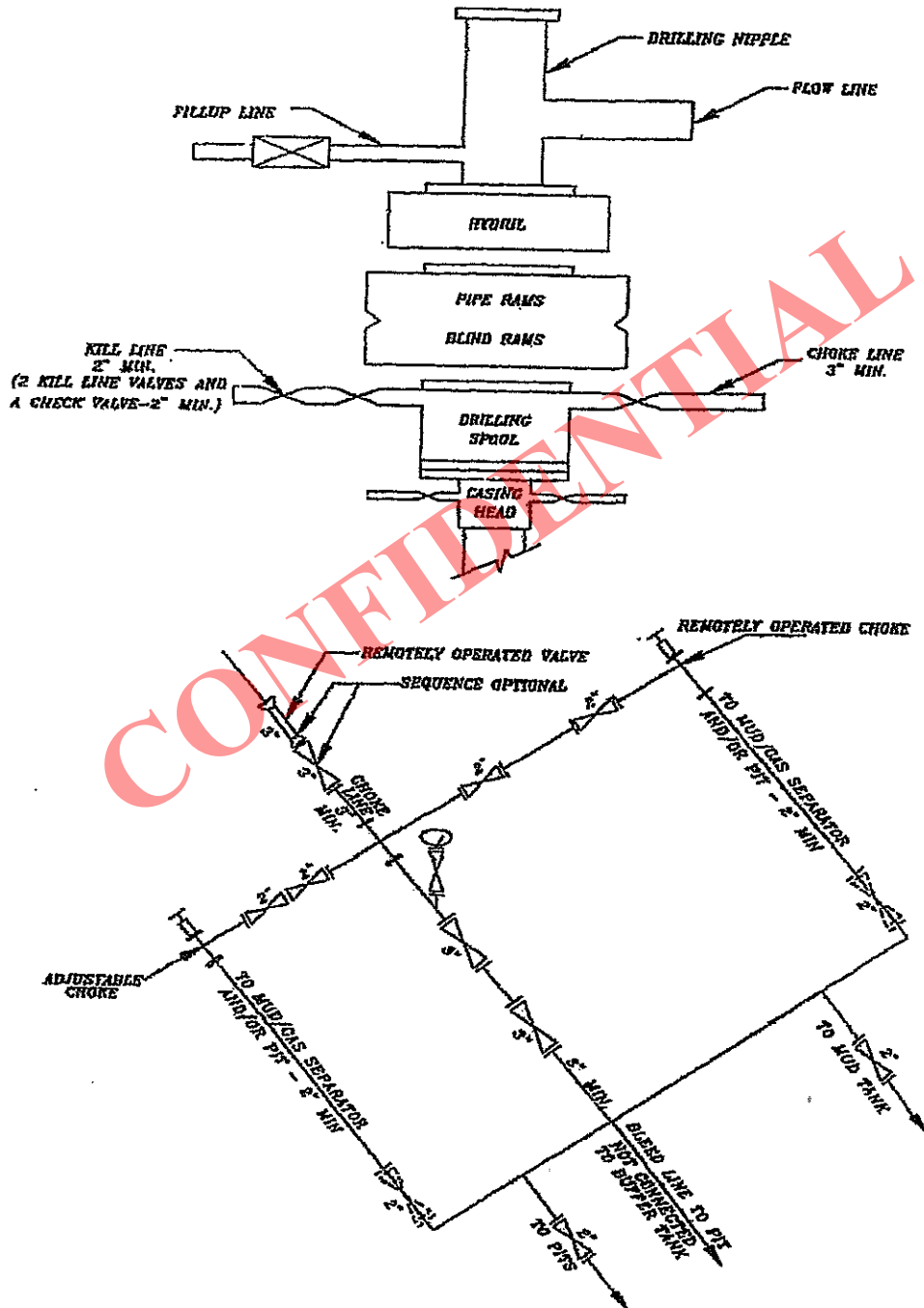


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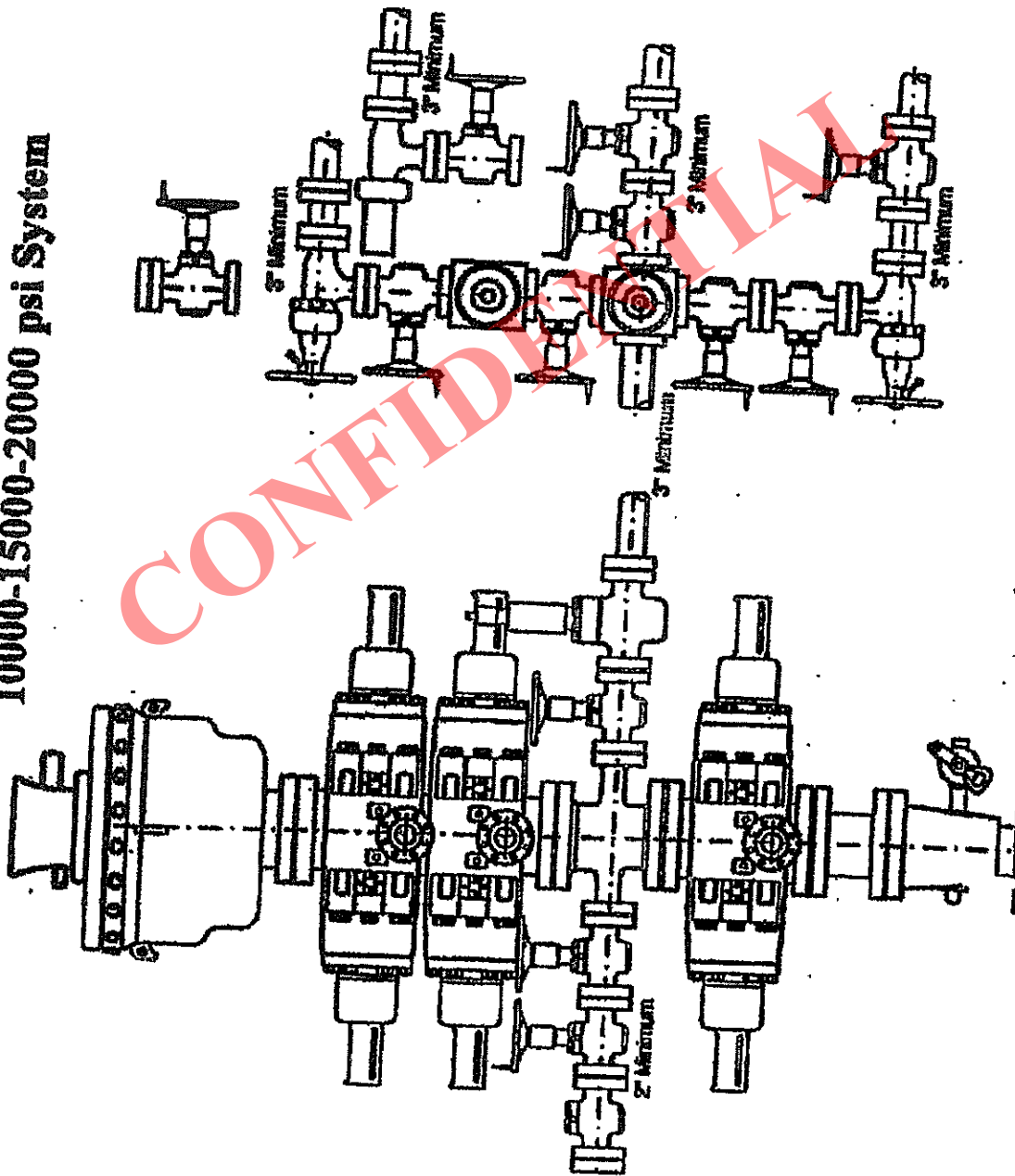
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5M BOP STACK and CHOKE MANIFOLD SYSTEM

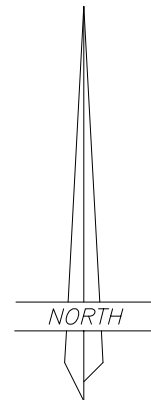
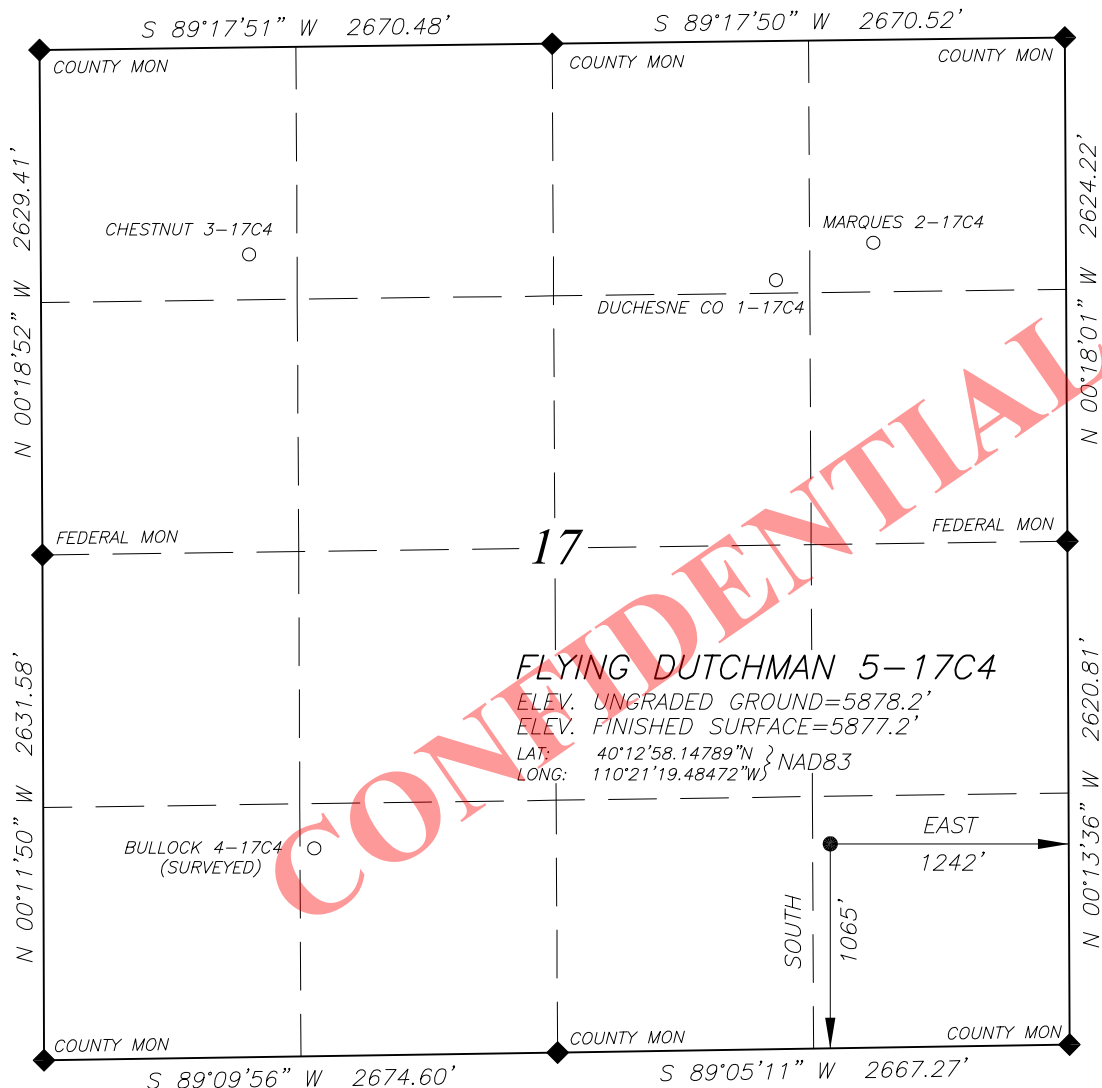


10000-15000-20000 psi System



EP ENERGY E&P COMPANY, L.P.**WELL LOCATION****FLYING DUTCHMAN 5-17C4**

LOCATED IN THE SE¼ OF THE SE¼ OF
SECTION 17, T3S, R4W, U.S.B.&M.
DUCHESE COUNTY, UTAH



SCALE: 1" = 1000'



NOTE:
NAD27 VALUES FOR
WELL POSITION:
LAT: 40.21619507° N
LONG: 110.35470165° W

LEGEND AND NOTES

- ◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY

THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP

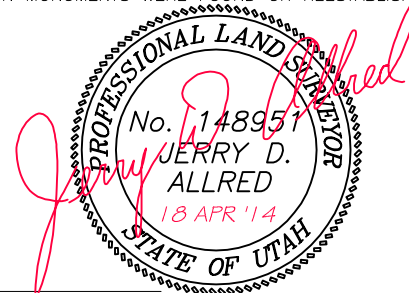
THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

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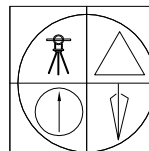
BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.



JERRY D. ALLRED, REGISTERED LAND SURVEYOR,
CERTIFICATE NO. 148951 (UTAH)

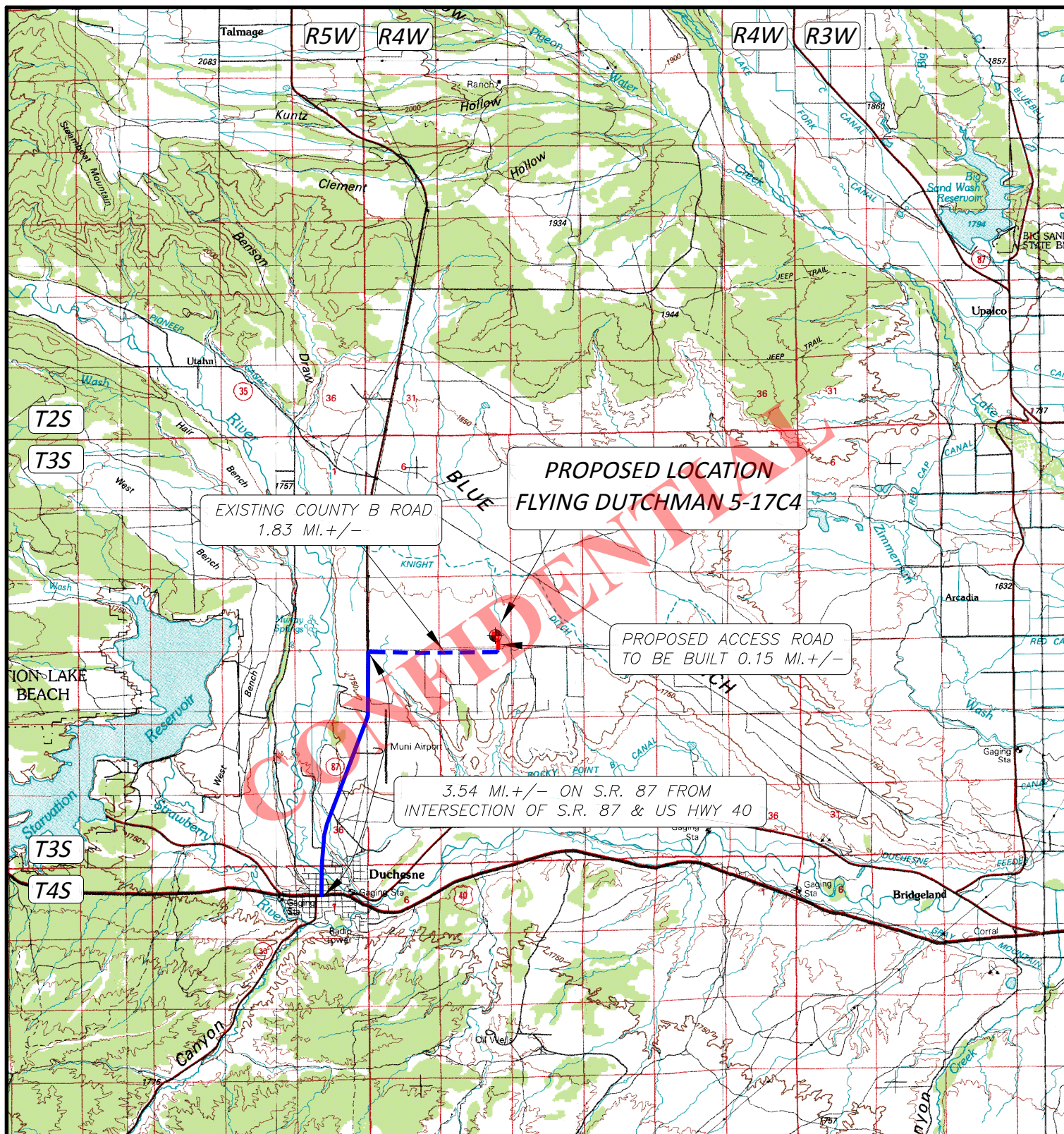


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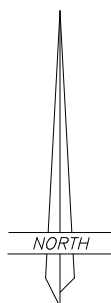
**LEGEND:**

⊕ PROPOSED WELL LOCATION

01-128-521

JERRY D. ALLRED & ASSOCIATES
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FLYING DUTCHMAN 5-17C4

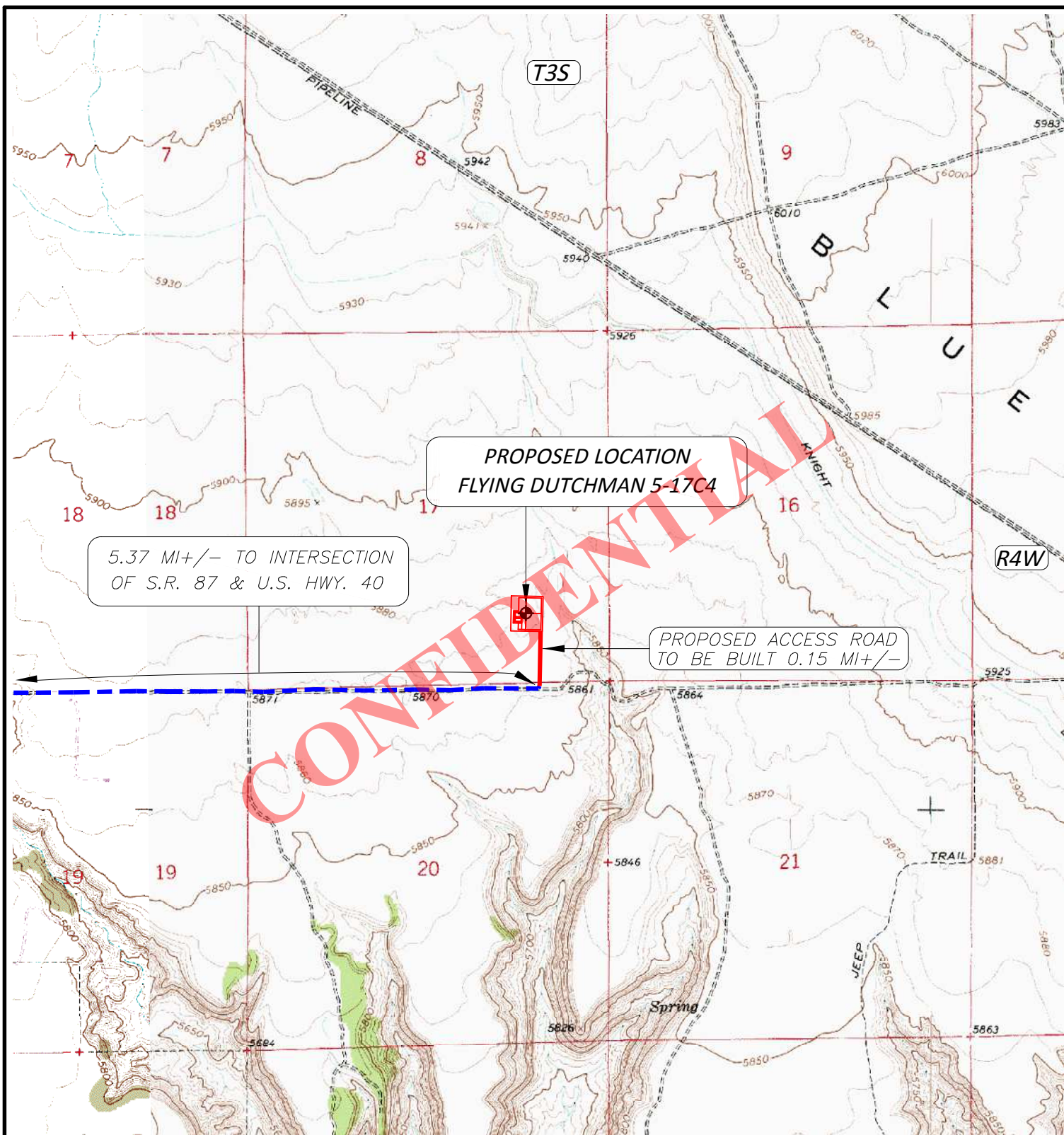
SECTION 17, T3S, R4W, U.S.B.&M.

1065' FSL, 1242' FEL

TOPOGRAPHIC MAP "A"

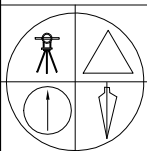
SCALE: 1"=10,000'

18 APR 2014

**LEGEND:**

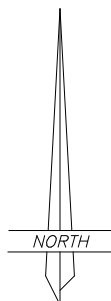
- PROPOSED WELL LOCATION**
- PROPOSED ACCESS ROAD**
- EXISTING GRAVEL ROAD**
- EXISTING DIRT ROAD**

01-128-521



JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975
DUCHESTER, UTAH 84021
(435) 738-5352



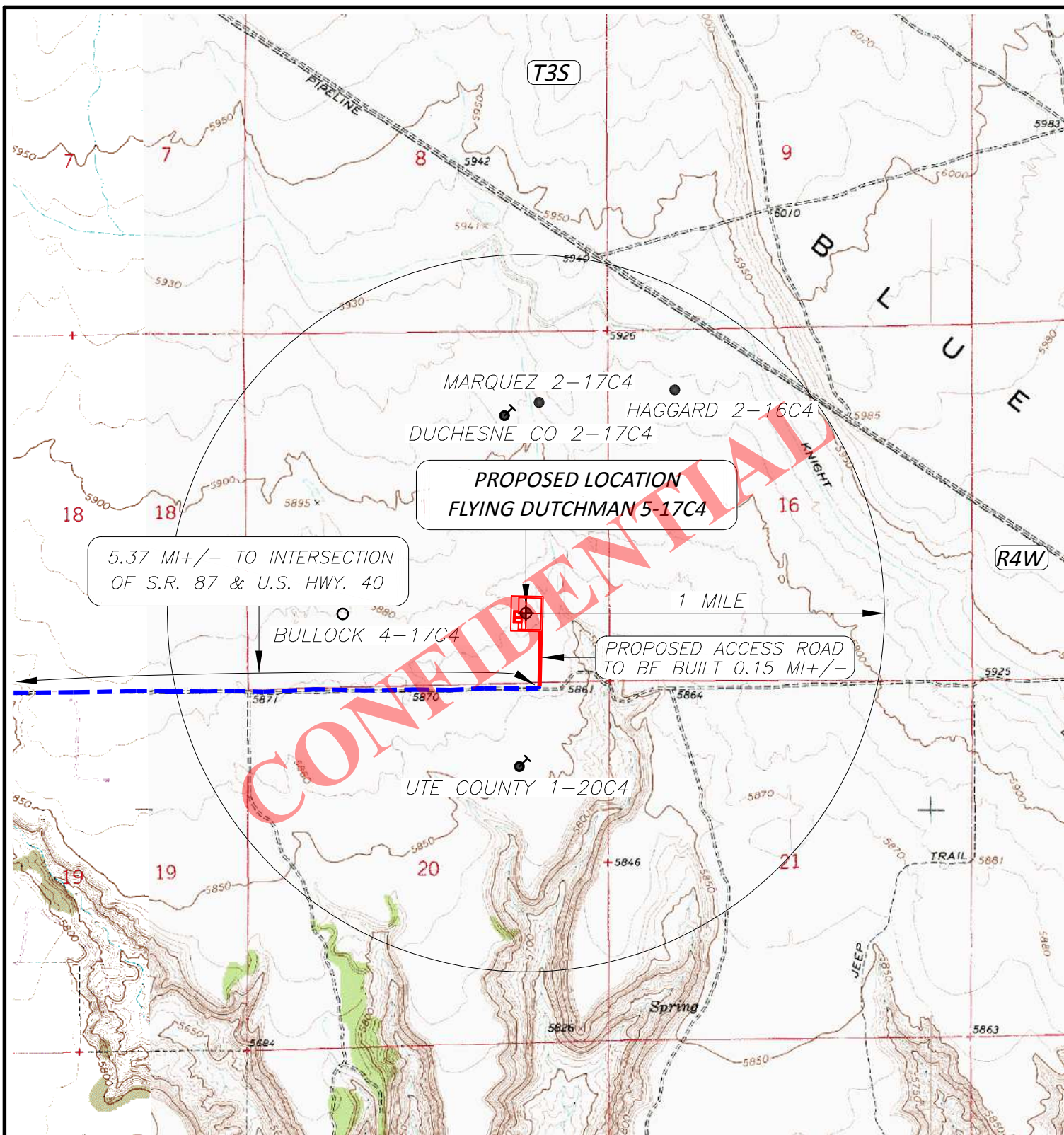
EP ENERGY E&P COMPANY, L.P.

FLYING DUTCHMAN 5-17C4
SECTION 17, T3S, R4W, U.S.B.&M.

1065' FSL, 1242' FEL

TOPOGRAPHIC MAP "B"

SCALE: 1"=2000'
18 APR 2014

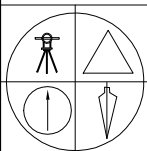
**LEGEND:**

⊕ PROPOSED WELL LOCATION

2-25C6

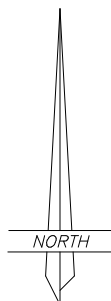
● ⊙ + ⊕ ○ ↗ ↘ ↙ ↚

01-128-521



JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975
DUCHESENE, UTAH 84021
(435) 738-5352



EP ENERGY E&P COMPANY, L.P.

FLYING DUTCHMAN 5-17C4
SECTION 17, T3S, R4W, U.S.B.&M.

1065' FSL, 1242' FEL

TOPOGRAPHIC MAP "C"

SCALE: 1"=2000'

18 APR 2014

AFFIDAVIT OF DAMAGE SETTLEMENT AND RELEASE

Corie A. Mathews personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Corie A. Mathews. I am a Senior Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana Street, Houston, Texas 77002 ("EP Energy").
2. EP Energy is the operator of the proposed Flying Dutchman 5-17C4 well ("the Well") to be located in the SE/4 of the SE/4 of Section 17, Township 3 South, Range 4 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owners of the Drillsite Location are Robert A. Nielson, Sr., Trustee of the Robert A. Nielson, Sr. Trust, and Pamela J. Nielson, Trustee of Pamela J. Nielson Trust, whose address is 4094 W. 5625 N., Roosevelt, UT 84066 and whose telephone number is (435) 353-4706 (the "Surface Owner").
3. EP Energy and the Surface Owner have entered into a Damage Settlement and Release Agreement dated March 5, 2014 to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of operations associated with the drilling, completing and producing of the Well.

FURTHER AFFIANT SAYETH NOT.



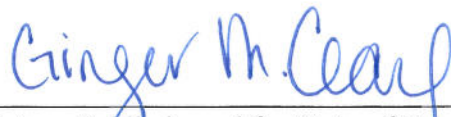
Corie A. Mathews

ACKNOWLEDGMENT

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

This instrument was acknowledged before me on this the 22nd day of April, 2014 by Corie A. Mathews as a Senior Landman for EP ENERGY E&P COMPANY, L.P., a Delaware limited partnership, on behalf of said partnership and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.





Notary Public in and for State of Texas

EP Energy E&P Company, L.P.

Related Surface Information

1. **Current Surface Use:**

- Livestock Grazing and Oil and Gas Production.

2. **Proposed Surface Disturbance:**

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .15 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3. **Location Of Existing Wells:**

- Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

4. **Location And Type Of Drilling Water Supply:**

- Drilling water: Duchesne City Water

5. **Existing/Proposed Facilities For Productive Well:**

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .15 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

6. **Construction Materials:**

- Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

7. **Methods For Handling Waste Disposal:**

- The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
- Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
- Sewage will be handled in Portable Toilets.
- Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a later date.
- Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

8. **Ancillary Facilities:**

- There will be no ancillary facilities associated with this project.

9. **Surface Reclamation Plans:**

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
 1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
 2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
 3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
 1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
 2. Landowner will be contacted for rehabilitation requirements.

10. **Surface Ownership:**

Robert A. Nielson, Sr.
Trustee of the Robert A. Nielson, Sr. Trust
Pamela J. Nielson
Trustee of the Pamela J. Nielson Trust
4094 W. 5625 N.
Roosevelt, UT 84066
435-353-4706

Other Information:

- The surface soil consists of clay, and silt.
- Flora – vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna – antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses – Livestock grazing and mineral exploration and production.

• **Operator and Contact Persons:**

Construction and Reclamation:

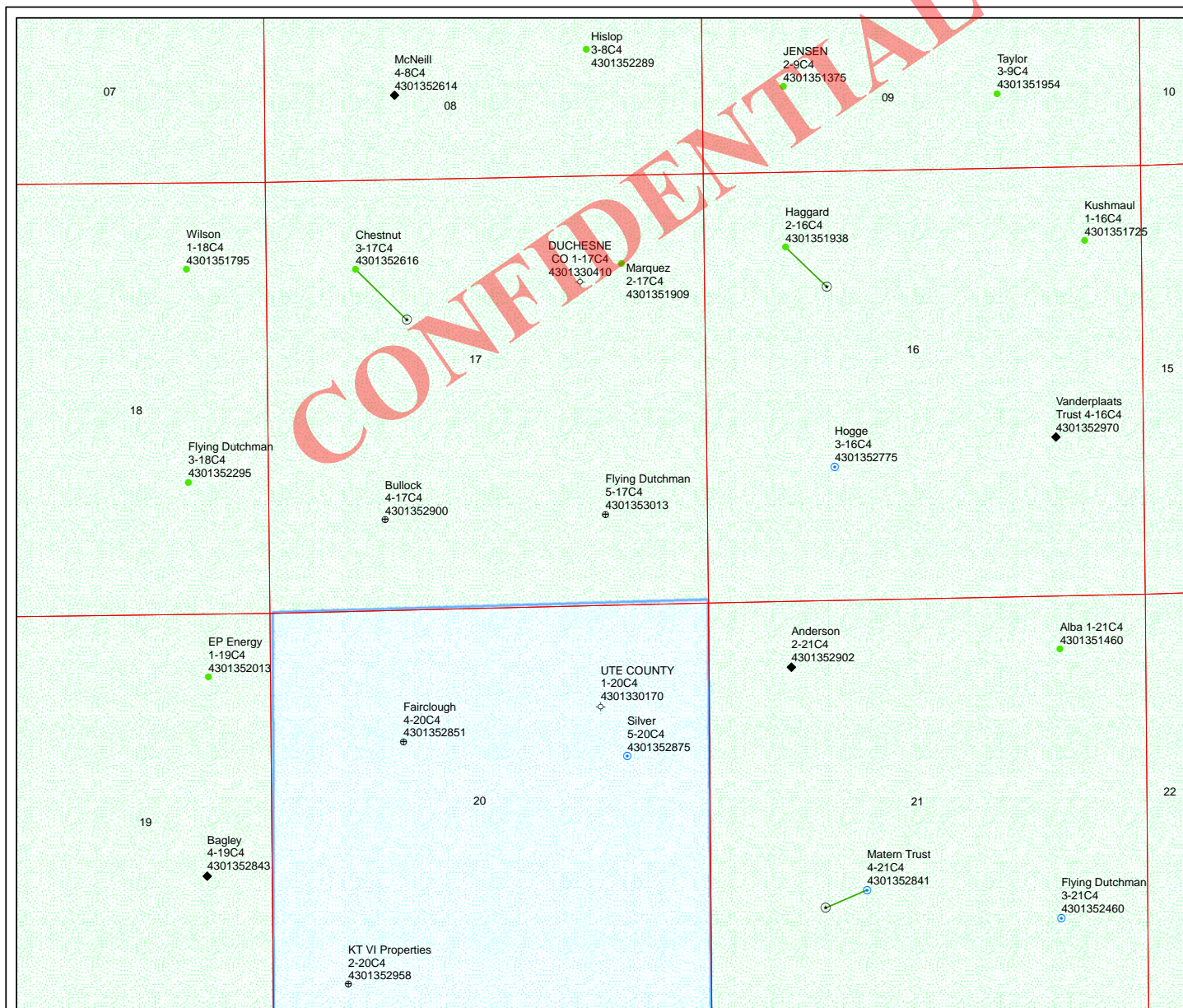
EP Energy E&P Company, L.P.
Wayne Garner
PO Box 410
Altamont, Utah 84001
435-454-3394 – Office
435-823-1490 – Cell

Regarding This APD

EP Energy E&P Company, L.P.
Maria S. Gomez
1001 Louisiana, Rm 2730D
Houston, Texas 77002
713-997-5038 – Office

Drilling

EP Energy E&P Company, L.P.
Brad MacAfee – Drilling Engineer
1001 Louisiana, Rm 2660D
Houston, Texas 77002
713-997-6383 – office
281-813-0902 – Cell



API Number: 4301353013

Well Name: Flying Dutchman 5-17C4

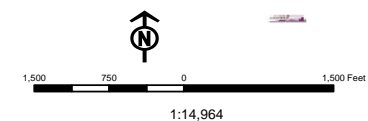
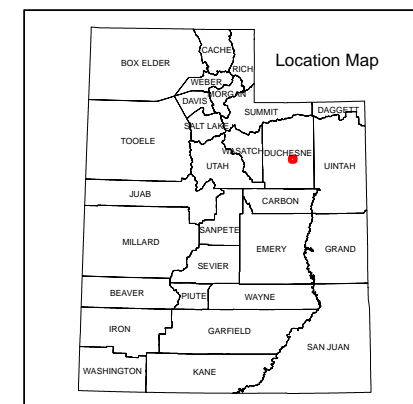
Township: T03.0S Range: R04.0W Section: 17 Meridian: U

Operator: EP ENERGY E&P COMPANY, L.P.

Map Prepared: 6/27/2014
Map Produced by Diana Mason

Wells Query		Units	
Status		STATUS	
APD - Approved Permit		ACTIVE	
DRL - Spudded (Drilling Commenced)		EXPLORATORY	
GRW - Gas Injection		GAS STORAGE	
GS - Gas Storage		NF PP OIL	
LOC - New Location		NF SECONDARY	
OPS - Operation Suspended		PI OIL	
PA - Plugged Abandoned		PP GAS	
PGW - Producing Gas Well		PP GEOTHERML	
POW - Producing Oil Well		PP OIL	
SGW - Shut-in Gas Well		SECONDARY	
SOW - Shut-in Oil Well		TERMINATED	
TA - Temp. Abandoned			
TW - Test Well			
WDW - Water Disposal			
WW - Water Injection Well			
WSW - Water Supply Well			

Fields	
STATUS	
Unknown	
ABANDONED	
ACTIVE	
COMBINED	
INACTIVE	
STORAGE	
TERMINATED	



Well Name	EP ENERGY E&P COMPANY, L.P. Flying Dutchman 5-17C4 430135301			
String	Cond	Surf	I1	L1
Casing Size(in)	13.375	9.625	7.000	5.000
Setting Depth (TVD)	600	2000	9000	12300
Previous Shoe Setting Depth (TVD)	0	600	2000	9000
Max Mud Weight (ppg)	9.0	9.2	10.1	12.6
BOPE Proposed (psi)	1000	500	10000	10000
Casing Internal Yield (psi)	2730	5750	11220	13940
Operators Max Anticipated Pressure (psi)	8059			12.6

Calculations	Cond String	13.375	"
Max BHP (psi)	.052*Setting Depth*MW=	281	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	209	YES rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	149	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	149	NO OK
Required Casing/BOPE Test Pressure=		500	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	957	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	717	NO diverter stack with rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	517	NO OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	649	NO OK
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		600	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	4727	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3647	YES 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2747	YES dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3187	NO OK
Required Casing/BOPE Test Pressure=		7854	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2000	psi *Assumes 1psi/ft frac gradient

Calculations	L1 String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	8059	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	6583	YES 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	5353	YES dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	7333	YES OK
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		9000	psi *Assumes 1psi/ft frac gradient

43013530130000 Flying Dutchman 5-17C4

Casing Schematic

Surface

13-3/8"
MW 9.9-5/8"
MW 9.2
Frac 19.37"
MW 10.1
Frac 19.35"
MW 12.6

12 3/4

12 1/2

18 1/2

TOC @ 0. ✓ *Duchesne R.*

TOC @ 327.

Conductor

600. MD

1300' BMSW-EP w/o, tail 1457'

1400' BMSW

1561' tail ✓

Surface

2000. MD

4094' Green River
TOC @ 4139. → to 1541' @ 2 3/4" w/o, tail 6567'

* Proposed 1500' / 6600'

4794' Green River (GRTN1)

5594' Mahogany Bench

7054' L. Green River

7415' tail * Proposed 6600'

* St. D ✓

12 3/4

TOL @ 8800.

8904' Wasatch

Intermediate

9000. MD

TOC @ 9771.

→ to TOL @ 4 3/4" w/o ✓

offset inj. wells

43013530971 - 4106' to 7528' - 2 mi NW

✓ Strip cmts.

CONFIDENTIAL

Well name:	43013530130000 Flying Dutchman 5-17C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Conductor	Project ID: 43-013-53013
Location:	DUCHESNE COUNTY	

Design parameters:**Collapse**

Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 82 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Burst:

Design factor 1.00

Cement top: Surface

Burst

Max anticipated surface pressure: 209 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 281 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 520 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	600	13.375	54.50	J-55	ST&C	600	600	12.49	7445

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	281	1130	4.028	281	2730	9.73	28.3	514	18.13 J

Prepared Helen Sadik-Macdonald
by: Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: August 27, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 600 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43013530130000 Flying Dutchman 5-17C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Surface	Project ID: 43-013-53013
Location:	DUCHESNE COUNTY	

Design parameters:**Collapse**

Mud weight: 9.200 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 327 ft

Burst

Max anticipated surface pressure: 1,760 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,000 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 1,726 ft

Non-directional string.**Re subsequent strings:**

Next setting depth: 9,000 ft
Next mud weight: 10.100 ppg
Next setting BHP: 4,722 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,000 ft
Injection pressure: 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2000	9.625	40.00	N-80	LT&C	2000	2000	8.75	25450

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	956	3090	3.233	2000	5750	2.87	69.1	737	10.67 J

Prepared Helen Sadik-Macdonald
by: Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: August 27, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43013530130000 Flying Dutchman 5-17C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Intermediate	Project ID: 43-013-53013
Location:	DUCHESNE COUNTY	

Design parameters:**Collapse**

Mud weight: 10.100 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 200 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 4,139 ft

Burst

Max anticipated surface pressure: 5,345 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 7,325 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on buoyed weight.
Neutral point: 7,624 ft

Non-directional string.**Re subsequent strings:**

Next setting depth: 12,300 ft
Next mud weight: 12.600 ppg
Next setting BHP: 8,051 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 9,000 ft
Injection pressure: 9,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9000	7	29.00	HCP-110	LT&C	9000	9000	6.059	101632

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4722	9200	1.948	7325	11220	1.53	221.1	797	3.60 J

Prepared Helen Sadik-Macdonald
by: Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: August 27, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9000 ft, a mud weight of 10.1 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43013530130000 Flying Dutchman 5-17C4		
Operator:	EP ENERGY E&P COMPANY, LP.		
String type:	Production Liner	Project ID:	43-013-53013
Location:	DUCHESNE COUNTY		

Design parameters:**Collapse**

Mud weight: 12.600 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 246 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Burst:

Design factor 1.00

Cement top: 9,771 ft

Burst

Max anticipated surface pressure: 5,345 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 8,051 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Liner top: 8,800 ft
Non-directional string.

Tension is based on buoyed weight.
Neutral point: 11,629 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3500	5	18.00	HCP-110	ST-L	12300	12300	4.151	277200

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	8051	15360	1.908	8051	13940	1.73	50.9	341	6.70 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: August 27, 2014
Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 12300 ft, a mud weight of 12.6 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator EP ENERGY E&P COMPANY, L.P.
Well Name Flying Dutchman 5-17C4
API Number 43013530130000 **APD No** 9924 **Field/Unit** ALTAMONT
Location: 1/4,1/4 SESE **Sec** 17 **Tw** 3.0S **Rng** 4.0W 1065 FSL 1242 FEL
GPS Coord (UTM) 554847 4451949 **Surface Owner** Robert Nielson & Pamela Nielson Trusts

Participants

Robert & Pamela Nielsen (surface owners); Jared Thacker (EP Energy Construction); Heather Ivie and Kelsey Carter (Landman/women); Dennis Ingram (DOGM)

Regional/Local Setting & Topography

The Flying Dutchman 5-17C4 well is proposed in northeastern Utah in the Uintah Basin. Access to this well is gained by driving north from Duchesne at the junction of US Highway 40 and 87, then north on highway 87 for 3.54 miles, then east on a county road for another 1.83 miles where a access road is planned to the north into well site. The surface topography at this site is relatively flat and slopes southeasterly, and typical of the surface, habitat and vegetation found on Blue Bench. To the north, east, and south. The surface topography doesn't change much other than occasional dry wash. To the west, the topography does break off in about 2.5 miles into the Duchesne River corridor where it flows in a southerly direction just north of Duchesne. Scattered residential area with few houses and mobile homes.

Surface Use Plan

Current Surface Use
Residential

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.15	Width 392 Length 465	Onsite	DUCHR

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Soil Type and Characteristics

Reddish in color, fine-grained sandy loam with underlying cobbles and some clays.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required? N**Berm Required? Y****Erosion Sedimentation Control Required? N****Paleo Survey Run? N Paleo Potential Observed? N Cultural Survey Run? N Cultural Resources? N****Reserve Pit****Site-Specific Factors****Site Ranking**

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	High permeability	20
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		25

Sensitivity Level

Characteristics / Requirements

Proposed reserve pit off the west side of the location in cut, measuring 110' wide by 150' long by 12' deep and having prevailing winds from the west

Closed Loop Mud Required? Liner Required? Y Liner Thickness 20 Pit Underlayment Required?**Other Observations / Comments**

Surface slopes to the southeast, topography drops along the northeastern corner, no drainage issues, landowner attended presite and have signed off on surface.

Dennis Ingram
Evaluator

8/12/2014
Date / Time

Application for Permit to Drill

Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
9924	43013530130000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPANY, L.P.		Surface Owner-APD	Robert Nielson & Pamela Nielson Trusts	
Well Name	Flying Dutchman 5-17C4		Unit		
Field	ALTAMONT		Type of Work	DRILL	
Location	SESE 17 3S 4W U 1065 FSL 1242 FEL GPS Coord (UTM) 554848E 4451966N				

Geologic Statement of Basis

El Paso proposes to set 600 feet of conductor and 2,000 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,400 feet. A search of Division of Water Rights records indicates that there are 7 water wells within a 10,000 foot radius of the center of Section 16. These wells probably produce water from the Duchesne River Formation. Depths of the wells fall in the range of 200-460 feet. The wells are listed as being used for irrigation, stock watering, oil exploration and domestic. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill
APD Evaluator

8/14/2014
Date / Time

Surface Statement of Basis

The surface topography at the well pad slopes gently to the southeast and is void of any drainage issues. A reserve pit is planned off the west side of the location in cut, and will need lined with a 20 mil synthetic liner to help contain the drilling fluids in this sandy soil. This pit should be fenced on three sides until drilling is completed then around all four sides until it is closed. The operator should also address any issues they have made with the surface owner in their surface agreement.

A presite was scheduled and performed on August 12, 2014 to take input and address issues regarding the construction and drilling of the Flying Dutchman 5-17C4 well. The landowner of record was notified and did attend the presite meeting. A surface use and damage agreement is in place between the landowner and operator and should be followed by the parties involved. No other issues were noted at the presite meeting.

Dennis Ingram
Onsite Evaluator

8/12/2014
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the west side of the location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/25/2014

API NO. ASSIGNED: 43013530130000

WELL NAME: Flying Dutchman 5-17C4

OPERATOR: EP ENERGY E&P COMPANY, L.P. (N3850)

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: SESE 17 030S 040W

Permit Tech Review: ☒

SURFACE: 1065 FSL 1242 FEL

Engineering Review: ☒

BOTTOM: 1065 FSL 1242 FEL

Geology Review: ☒

COUNTY: DUCHESNE

LATITUDE: 40.21632

LONGITUDE: -110.35542

UTM SURF EASTINGS: 554848.00

NORTHINGS: 4451966.00

FIELD NAME: ALTAMONT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee

PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

☒ PLAT☒ Bond: STATE/FEE - 400JU0708☐ Potash☐ Oil Shale 190-5☐ Oil Shale 190-3☐ Oil Shale 190-13☒ Water Permit: Duchesne City☐ RDCC Review:☒ Fee Surface Agreement☐ Intent to Commingle

Commingle Approved

LOCATION AND SITING:

☐ R649-2-3.

Unit:

☐ R649-3-2. General☐ R649-3-3. Exception☒ Drilling Unit

Board Cause No: Cause 139-90

Effective Date: 5/9/2012

Siting: 4 Wells Per 640 Acres

☐ R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhll
8 - Cement to Surface -- 2 strings - hmadonald
12 - Cement Volume (3) - hmadonald

RECEIVED: September 15, 2014



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Flying Dutchman 5-17C4

API Well Number: 43013530130000

Lease Number: Fee

Surface Owner: FEE (PRIVATE)

Approval Date: 9/15/2014

Issued to:

EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-90. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 13 3/8" and 9 5/8" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 1500' MD and tail cement to 500' above the Lower Green River as indicated in the submitted drilling plan.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this

well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

Approved By:

A handwritten signature in black ink, appearing to read "J. Rogers", written over a horizontal line.

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Flying Dutchman 5-17C4	
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.		9. API NUMBER: 43013530130000
3. ADDRESS OF OPERATOR: 1001 Louisiana, Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1065 FSL 1242 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 17 Township: 03.0S Range: 04.0W Meridian: U		COUNTY: DUCHESNE
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 1/16/2015	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EP requests approval to change to setting 9 5/8" with air rig instead of utilizing WBM and to upgrade the surface cement to 12#. Please see attached for details.

Approved by the
 January 15, 2015
 Oil, Gas and Mining

Date: _____

By: Derek Duff

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A		DATE 1/15/2015

**Flying Dutchman 5-17C4
Sec. 17, T3S, R4W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	4,094' TVD
Green River (GRTN1)	4,794' TVD
Mahogany Bench	5,594' TVD
L. Green River	7,054' TVD
Wasatch	8,904' TVD
T.D. (Permit)	12,300' TVD

2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,094' MD/TVD
	Green River (GRTN1)	4,794' MD/TVD
	Mahogany Bench	5,594' MD/TVD
Oil	L. Green River	7,054' MD/TVD
Oil	Wasatch	8,904' MD/TVD

3. Pressure Control Equipment: (Schematic Attached)

A Diverter Stack on structural pipe from 40' MD/TVD to 2,000' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams used from 2,000' MD/TVD to 9,000' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,000' MD/TVD to TD (12,300' MD/TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

This well is in surrounded by many wells we have drilled this year. We have pre-set 9-5/8" to around this same depth on many wells with no issues. I have a great handle on MW's & what we should expect in this area

There is 1 SWD within 3 miles of our location. The Blue Bench 1-13C5 SWD is 2.05 miles to the North West of our location. It is owned by Intercept Energy & is an active SWD well. It is injecting into the Upper/Middle Green River & Upper-most Lower Green River. The injection interval is from 4106'-7528'. The injection rate is now ~500 bbls/day @ 500-600 psi (I just got off the phone

with Keith who is with Intercept Energy). The pressure dissipates to 300 psi while down on maintenance. Using 300 psi, the EMW @ 4106' is 10.01 ppg. We will not see any pressure from this well since it is 2.05 miles away from us. We have drilled as close as 0.98 miles to this SWD well (that well is between the SWD & this proposed location) & on fracture orientation and have not seen any pressure while drilling.

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

Statement on Accumulator System and Location of Hydraulic Controls:

Precision # 406 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

Auxiliary Equipment:

- A) Pason Gas Monitoring 2,000' - TD
- B) Mud logger with gas monitor – 2,000' to TD
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

4. Proposed Casing & Cementing Program:

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	Air	Air
Intermediate	WBM	9.3 – 10.2
Production	WBM	10.5 – 12.2

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface casing shoe to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,300' TVD equals approximately 7,803 psi. This is calculated based on a 0.6344 psi/ft gradient (12.2 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 5,097 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,000' TVD = 7,200 psi

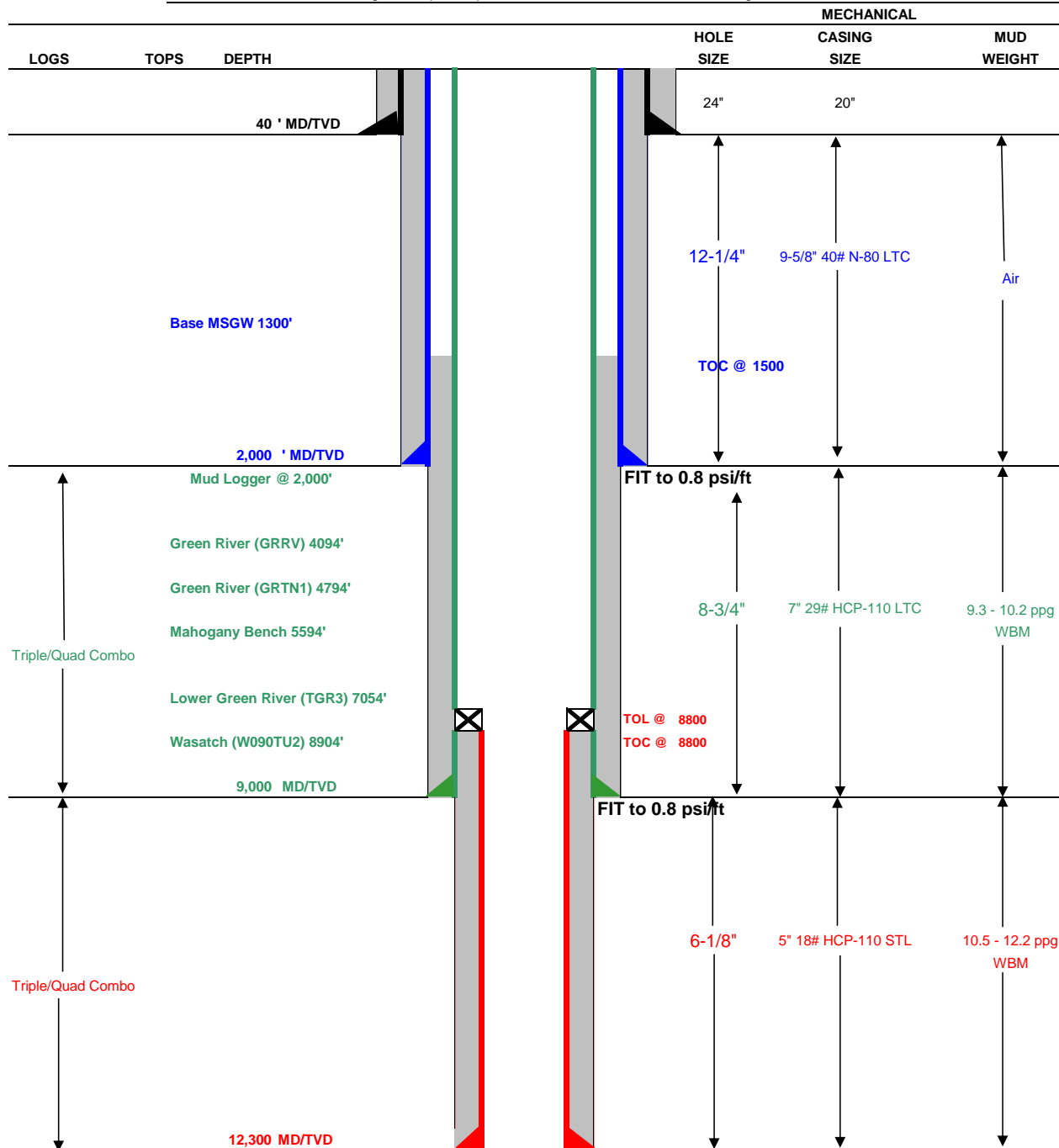
BOPE and casing design will be based on the lesser of the two MASPs which is 5,097 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**



Drilling Schematic

Company Name: EP ENERGY	Date: January 15, 2015
Well Name: Flying Dutchman 5-17C4	TD: 12,300
Field, County, State: Altamont, Duchesne, Utah	AFE #: TBD
Surface Location: Sec 17 T3S R4W 1091' FSL 1212' FEL	BHL: Straight Hole
Objective Zone(s): Green River, Wasatch	Elevation: 5877.2
Rig: Precision 406	Spud (est.): TBD
BOPE Info: Diverter Stack on structural pipe from 40' to 2,000' . 11 10M BOPE w/ rotating head & 5M annular from 2,000' to 9,000' . 11 10M BOPE w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 9,000' to TD	



DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
SURFACE	9-5/8"	0	2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	9000	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5"	8800	12300	18.00	HCP-110	STL	13,940	15,450	341

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	Lead	1,500	EXTENDACEM SYSTEM: Type V Cement + 2% Cal-Seal + 0.35% Versaset + 0.3% D-Air 5000 + 6% Salt + 2% Econolite + 0.125 Poly-E-Flake	412	100%	12.0 ppg	2.36
	Tail	500	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	195	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	5,000	EXTENDACEM SYSTEM: Class G Cement + 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.75% HR-5 + 0.3% Super CBL + 0.2% Halad-322 + 0.125 lb/sk Poly-E-Flake	501	30%	12.5 ppg	1.91
	Tail	2,500	EXPANDACEM SYSTEM: Class G Cement + 4% Bentonite + 0.25 Poly-E-Flake + 0.1% Halad-413 + 5 lb/sk Silicalite Compacted + 0.15% SA-1015 + 0.3% HR-5	304	30%	13.0 ppg	1.64
PRODUCTION LINER		3,500	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.3% Halad 344 + 0.3% Halad 413 + 5 lb/sk Silicalite + 20% SSA-1 + 2% Bentonite + 0.7% HR-5	201	25%	14.2 ppg	1.52

FLOAT EQUIPMENT & CENTRALIZERS	
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M, P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at +/- 7,050'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Brad MacAfee 713-997-6383

MANAGER: Bob Dodd



Alexis Huefner <alexishuefner@utah.gov>

24hr Notice of Spud Flying Dutchman 5-17C4 API # 43013530130000

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Fri, Jan 16, 2015 at 7:32 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

FLYING DUTCHMAN 5-17C4

API # 43013530130000

ALTAMONT FIELD

DUCHESNE COUNTY

ID65 FSL 1242 FEL
SESE 17 BS 4W

Leon Ross Drilling spudded the well @ 16:30hrs on 1/15/2015. We plan on running and cementing 20" Conductor Casing to +/- 40' within 24hrs.

CONFIDENTIAL

Regards,

Tony Wilkerson / Bill Owen

EP Energy LLC

PD Rig 406

Rig: 713-997-1220

Cell: 435-823-1764

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

CONFIDENTIAL



Carol Daniels <caroldaniels@utah.gov>

SESE 5-17 T035 P04W FEE LEASE

24hr Notince run & cement casing

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Mon, Feb 2, 2015 at 3:17 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

EP FLYING DUTCHMAN 5-17C4

API # 43013530130000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running & cementing 7" HCP-110 29# LTC Intermediate casing to +/- 9,015' within 24 hours.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Flying Dutchman 5-17C4	
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013530130000	
3. ADDRESS OF OPERATOR: 1001 Louisiana, Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1065 FSL 1242 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 17 Township: 03.0S Range: 04.0W Meridian: U	COUNTY: DUCHESNE	
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 2/20/2015	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Initial Completion"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EP plans to complete in the Wasatch. See attached for details.

Approved by the
February 17, 2015
Oil, Gas and Mining

Date: _____

By: Derek Duff

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 2/17/2015	

Flying Dutchman 5-17C4

Initial Completion

API # : 4301353013

The following precautions will be taken until the RCA for the Conover is completed:

1. Review torque turning and running of the 7" and 5" liner of anomalies.
2. Test and chart casing for 30 minutes, noting pressure if any on surface casing.
3. Test all lubricators, valves and BOP's to working pressure.
4. A frac tree with BOP equipment will be utilized during the stimulation treatment.
5. Monitor the surface casing during frac:
 - a. Lay a flowline to the flow back tank and keep the valve open.
 - b. This line will remain in place until a wire line set retrievable packer is in place isolating the casing after the frac.
6. 2 7/8" tubing will be run to isolate the casing during the flow back of the well.
7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

Completion Information (Wasatch Formation)

Stage #1	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10630' – 10914' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3658 bbls.
Stage #2	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10343' – 10591' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3653 bbls.
Stage #3	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10071' – 10312' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3648 bbls.
Stage #4	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9774' – 10038' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3643 bbls.
Stage #5	RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9475' – 9741' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3637 bbls.

Stage #6 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9224' – 9445' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3633 bbls.

Stage #7 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~8958' – 9192' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3628 bbls.

Stimulation Summary

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	BBLs of Clean H2O	BBLs of Slurry
Stage #1	10,630	10,914	284	NA	23	69	17	TLC 30/50	150,000	528	3,000	5,000	3,658	4,059
Stage #2	10,343	10,591	248	10,606	21	63	17	TLC 30/50	150,000	605	3,000	5,000	3,653	4,053
Stage #3	10,071	10,312	241	10,327	22	66	17	TLC 30/50	150,000	622	3,000	5,000	3,648	4,049
Stage #4	9,774	10,038	264	10,053	23	69	17	TLC 30/50	150,000	568	3,000	5,000	3,643	4,043
Stage #5	9,475	9,741	266	9,756	23	69	17	TLC 30/50	150,000	564	3,000	5,000	3,637	4,038
Stage #6	9,224	9,445	221	9,460	23	69	17	TLC 30/50	150,000	679	3,000	5,000	3,633	4,034
Stage #7	8,958	9,192	234	9,207	23	69	17	TLC 30/50	150,000	641	3,000	5,000	3,628	4,029
Average per Stage			251		23	68	17		150,000	601	3,000	5,000	3,643	4,043
Totals per Well			1,758		158	474	119		1,050,000		21,000	35,000	25,500	28,304

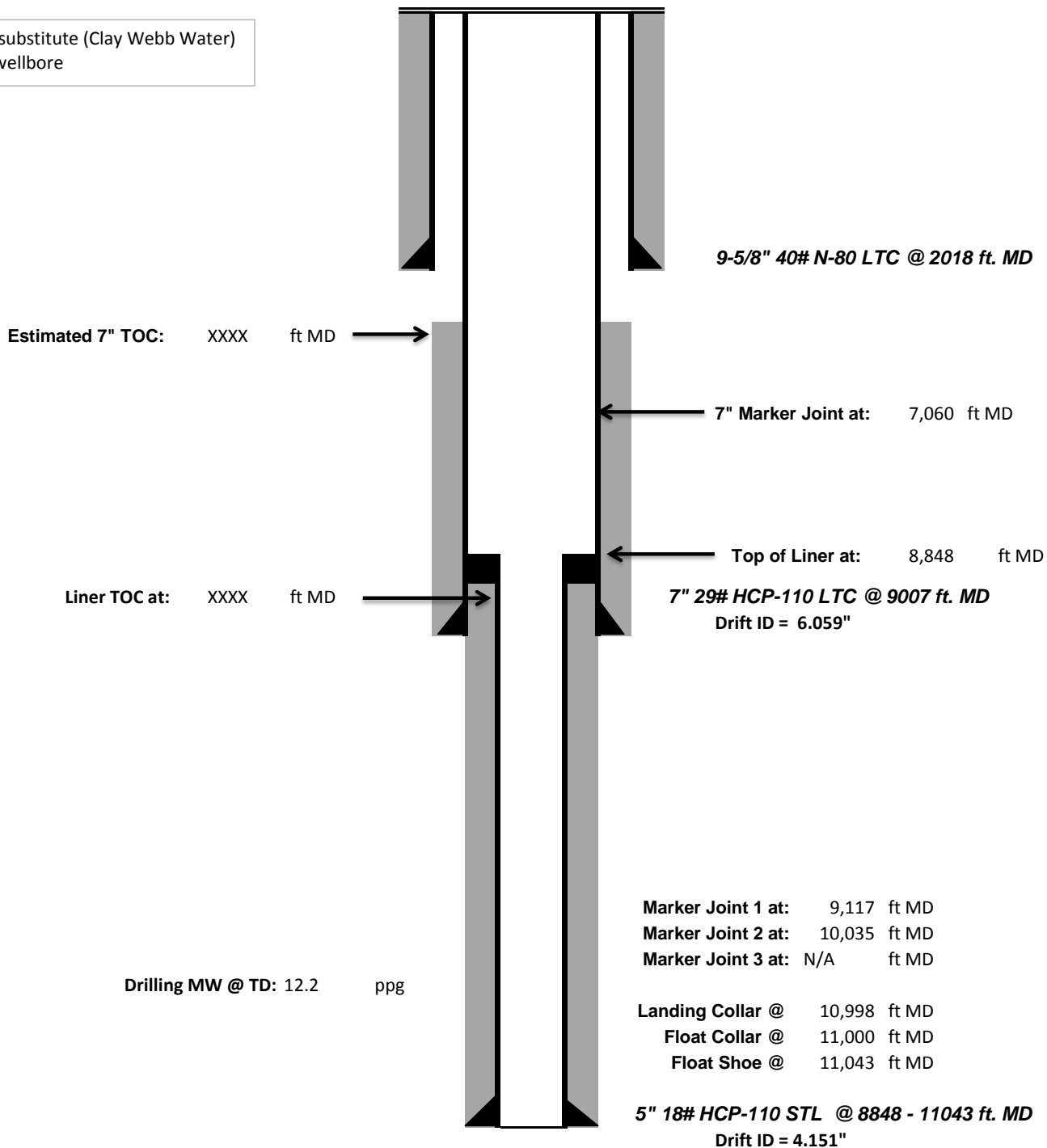


Pre-Completion Wellbore Schematic

Well Name: **Flying Dutchman 5-17C4**
Company Name: **EP Energy**
Field, County, State: **Altamont, Duchesne, Utah**
Surface Location: **Lat: 40° 12' 58.41" N Long: 110° 21' 19.103" W**
Producing Zone(s): **Wasatch**

Last Updated: **2/13/2015**
By: **David Gregory**
TD: **11,043**
API: **4301353013**
AFE: **161260**

8.43 ppg KCL substitute (Clay Webb Water)
water in the wellbore



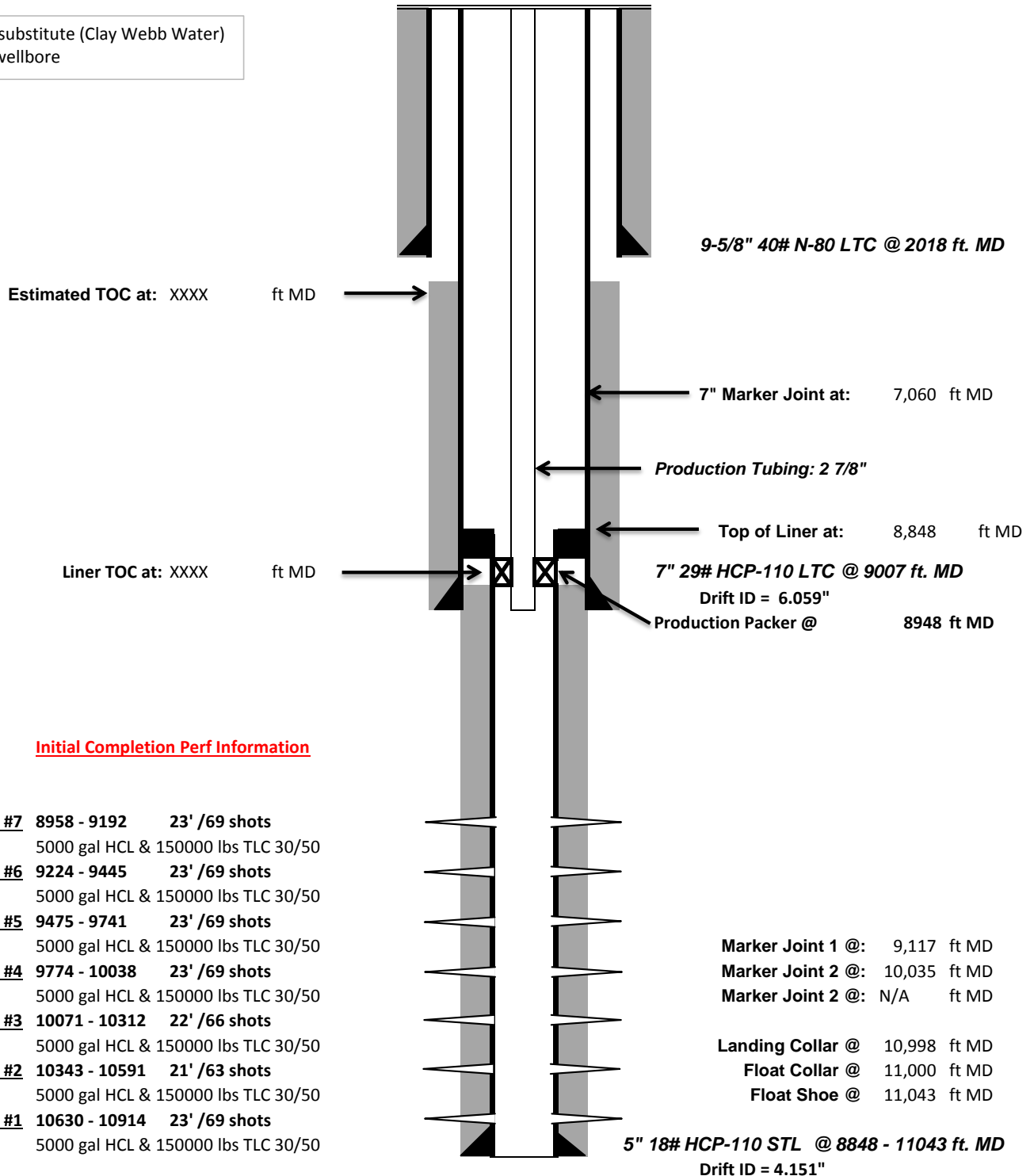


Post-Completion Wellbore Schematic

Well Name: **Flying Dutchman 5-17C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40° 12' 58.41" N Long: 110° 21' 19.103" W**
 Producing Zone(s): **Wasatch**

Last Updated: **2/13/2015**
 By: **David Gregory**
 TD: **11,043**
 API: **4301353013**
 AFE: **161260**

8.43 ppg KCL substitute (Clay Webb Water)
 water in the wellbore



CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

SESE SEC 17 T03S R04W

FREE LEASE

24hr Notice Run & Cement liner

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Fri, Feb 6, 2015 at 8:05 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

FLYING DUTCHMAN 5-17C4

API # 43013530130000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running & cementing 5" 18# HCP-110 STL Production liner to +/- 11,048' within 24 hours.

Regards,

Tony Wilkerson / Bill Owen

EP Energy LLC

PD Rig 406

Rig: 713-997-1220

Cell: 435-823-1764

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MININGAMENDED REPORT ☐ FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG						5. LEASE DESIGNATION AND SERIAL NUMBER:			
						6. IF INDIAN, ALLOTTEE OR TRIBE NAME			
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____						7. UNIT or CA AGREEMENT NAME			
b. TYPE OF WORK: NEW WELL <input type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____						8. WELL NAME and NUMBER:			
2. NAME OF OPERATOR:						9. API NUMBER:			
3. ADDRESS OF OPERATOR: CITY _____ STATE _____ ZIP _____					PHONE NUMBER:	10 FIELD AND POOL, OR WILDCAT			
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: AT TOP PRODUCING INTERVAL REPORTED BELOW: AT TOTAL DEPTH:						11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:			
						12. COUNTY		13. STATE	
								UTAH	
14. DATE SPUDDED:		15. DATE T.D. REACHED:		16. DATE COMPLETED: ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>		17. ELEVATIONS (DF, RKB, RT, GL):			
18. TOTAL DEPTH: MD _____ TVD _____		19. PLUG BACK T.D.: MD _____ TVD _____		20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____			
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)					23. WAS WELL CORED? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit copy)				
24. CASING AND LINER RECORD (Report all strings set in well)									
HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
25. TUBING RECORD									
SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	
26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. See attached for further information on #27 & #28.									
DEPTH INTERVAL		AMOUNT AND TYPE OF MATERIAL							
29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.								30. WELL STATUS:	
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS				<input type="checkbox"/> GEOLOGIC REPORT		<input type="checkbox"/> DST REPORT		<input type="checkbox"/> DIRECTIONAL SURVEY	
<input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION				<input type="checkbox"/> CORE ANALYSIS		<input type="checkbox"/> OTHER: _____			

31. INITIAL PRODUCTION**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) _____ TITLE _____

SIGNATURE _____ DATE _____

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

Attachment to Well Completion Report**Form 8 Dated March 30, 2015****Well Name: Flying Dutchman 5-17C4****Items #27 and #28 Continued****27. Perforation Record**

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
9475'-9741'	.43	69	Open
9224'-9445'	.43	69	Open
8958'-9192'	.43	69	Open

28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10071'-10312'	5000 gal acid, 3000# 100 mesh, 151000# 30/50 TLC
9475'-9741'	5000 gal acid, 3000# 100 mesh, 150040# 30/50 TLC
9224'-9445'	5000 gal acid, 3000# 100 mesh, 150010# 30/50 TLC
8958'-9192'	5000 gal acid, 3000# 100 mesh, 150040# 30/50 TLC



Company: EP Energy
Well: Flying Dutchman 5-17C4
Location: Duchesne, UT
Rig: Precision 406

Job Number: _____
Mag Decl.: _____
Dir Driller: _____
MWD Eng: _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth				
Tie In	0.00	0.00	0.00											
1	100.00	0.45	242.88	100.00	100.00	-0.18	0.18	S	0.35	W	0.40	242.88	0.45	242.88
2	200.00	0.33	193.14	100.00	200.00	-0.64	0.64	S	0.77	W	1.00	230.14	0.35	-49.74
3	300.00	0.19	345.61	100.00	300.00	-0.76	0.76	S	0.88	W	1.16	228.88	0.51	-0.14
4	400.00	0.64	294.08	100.00	399.99	-0.38	0.38	S	1.42	W	1.47	255.10	0.54	-51.53
5	500.00	0.33	274.75	100.00	499.99	-0.13	0.13	S	2.21	W	2.22	266.67	0.35	-19.33
6	600.00	0.24	12.02	100.00	599.99	0.10	0.10	N	2.45	W	2.46	272.24	0.43	-0.09
7	700.00	0.64	309.30	100.00	699.99	0.65	0.65	N	2.85	W	2.92	282.92	0.57	0.41
8	800.00	0.53	238.54	100.00	799.98	0.77	0.77	N	3.67	W	3.75	281.82	0.68	-0.12
9	900.00	0.14	271.08	100.00	899.98	0.53	0.53	N	4.19	W	4.22	277.24	0.41	-0.39
10	1000.00	0.40	309.79	100.00	999.98	0.76	0.76	N	4.58	W	4.64	279.38	0.30	0.26
11	1100.00	0.38	248.11	100.00	1099.98	0.85	0.85	N	5.15	W	5.22	279.41	0.40	-0.02
12	1200.00	0.28	169.04	100.00	1199.98	0.49	0.49	N	5.41	W	5.43	275.18	0.43	-0.10
13	1300.00	0.52	313.21	100.00	1299.98	0.56	0.56	N	5.70	W	5.72	275.63	0.77	0.24
14	1400.00	0.49	241.15	100.00	1399.97	0.67	0.67	N	6.40	W	6.43	275.96	0.59	-0.04
15	1500.00	0.22	184.69	100.00	1499.97	0.27	0.27	N	6.79	W	6.79	272.32	0.41	-0.27
16	1600.00	0.57	276.18	100.00	1599.97	0.14	0.14	N	7.29	W	7.30	271.10	0.61	0.35
17	1700.00	0.77	200.70	100.00	1699.96	-0.43	0.43	S	8.02	W	8.04	266.90	0.83	0.20
18	1800.00	0.23	237.35	100.00	1799.96	-1.17	1.17	S	8.43	W	8.51	262.09	0.60	-0.54
19	1900.00	0.92	219.43	100.00	1899.95	-1.90	1.90	S	9.11	W	9.31	258.22	0.70	0.69
20	1952.00	0.72	202.08	52.00	1951.95	-2.52	2.52	S	9.50	W	9.83	255.12	0.61	-0.38
21	2117.00	1.21	204.19	165.00	2116.92	-5.07	5.07	S	10.60	W	11.76	244.42	0.30	0.30
22	2212.00	1.18	199.75	95.00	2211.90	-6.91	6.91	S	11.34	W	13.28	238.65	0.10	-0.03
23	2309.00	1.43	194.90	97.00	2308.88	-9.02	9.02	S	11.99	W	15.01	233.05	0.28	0.26
24	2405.00	0.88	122.54	96.00	2404.86	-10.57	10.57	S	11.68	W	15.76	227.85	1.49	-0.57
25	2500.00	0.83	135.36	95.00	2499.85	-11.46	11.46	S	10.58	W	15.60	222.73	0.21	-0.05
26	2596.00	0.59	61.56	96.00	2595.85	-11.72	11.72	S	9.66	W	15.18	219.50	0.91	-0.25
27	2692.00	2.33	37.03	96.00	2691.81	-9.92	9.92	S	8.05	W	12.78	219.05	1.89	1.81
28	2788.00	1.94	45.31	96.00	2787.75	-7.22	7.22	S	5.72	W	9.21	218.37	0.52	-0.41
29	2884.00	2.89	35.94	96.00	2883.66	-4.12	4.12	S	3.14	W	5.18	217.34	1.07	0.99
30	2980.00	2.77	35.74	96.00	2979.54	-0.28	0.28	S	0.37	W	0.46	232.96	0.13	-0.13
31	3075.00	1.70	18.44	95.00	3074.47	2.92	2.92	N	1.42	E	3.25	25.90	1.32	-1.13
32	3171.00	1.33	6.98	96.00	3170.44	5.38	5.38	N	2.01	E	5.74	20.44	0.50	-0.39
33	3267.00	0.65	329.29	96.00	3266.42	6.95	6.95	N	1.86	E	7.20	15.00	0.95	-0.71
34	3362.00	0.69	293.08	95.00	3361.42	7.64	7.64	N	1.06	E	7.71	7.91	0.44	0.04
35	3459.00	0.39	231.29	97.00	3458.41	7.66	7.66	N	0.27	E	7.67	1.99	0.63	-0.31



Company: EP Energy
Well: Flying Dutchman 5-17C4
Location: Duchesne, UT
Rig: Precision 406

Job Number:
Mag Decl.:
Dir Driller:
MWD Eng:

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates				Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)			Distance (ft)	Direction Azimuth			
36	3555.00	1.07	252.74	96.00	3554.40	7.19	7.19	N	0.84	W	7.24	353.30	0.75	0.71	22.34
37	3652.00	1.23	313.75	97.00	3651.39	7.64	7.64	N	2.46	W	8.03	342.15	1.21	0.16	62.90
38	3747.00	1.50	354.10	95.00	3746.36	9.59	9.59	N	3.33	W	10.15	340.87	1.03	0.28	42.47
39	3843.00	0.77	352.89	96.00	3842.34	11.48	11.48	N	3.53	W	12.01	342.88	0.76	-0.76	-1.26
40	3939.00	0.35	293.65	96.00	3938.34	12.23	12.23	N	3.88	W	12.84	342.39	0.69	-0.44	-61.71
41	4035.00	0.32	358.22	96.00	4034.34	12.62	12.62	N	4.16	W	13.29	341.75	0.37	-0.03	67.26
42	4094.66	0.09	212.27	59.66	4094.00	12.75	12.75	N	4.19	W	13.42	341.80	0.67	-0.39	-244.64
43	4131.00	0.32	192.33	36.34	4130.34	12.62	12.62	N	4.23	W	13.31	341.49	0.65	0.63	-54.87
44	4228.00	0.83	198.02	97.00	4227.33	11.69	11.69	N	4.50	W	12.53	338.94	0.53	0.53	5.87
45	4324.00	1.36	184.74	96.00	4323.32	9.89	9.89	N	4.81	W	11.00	334.07	0.61	0.55	-13.83
46	4420.00	0.16	113.85	96.00	4419.31	8.70	8.70	N	4.78	W	9.93	331.21	1.37	-1.25	-73.84
47	4516.00	0.88	172.51	96.00	4515.30	7.92	7.92	N	4.56	W	9.14	330.04	0.84	0.75	61.10
48	4612.00	0.87	87.11	96.00	4611.29	7.23	7.23	N	3.74	W	8.14	332.63	1.24	-0.01	-88.96
49	4708.00	0.84	81.57	96.00	4707.28	7.37	7.37	N	2.32	W	7.72	342.54	0.09	-0.03	-5.77
50	4794.73	1.44	80.69	86.73	4794.00	7.63	7.63	N	0.61	W	7.66	355.41	0.69	0.69	-1.01
51	4804.00	1.50	80.64	9.27	4803.26	7.67	7.67	N	0.38	W	7.68	357.18	0.65	0.65	-0.54
52	4900.00	1.13	106.71	96.00	4899.24	7.61	7.61	N	1.77	E	7.81	13.09	0.72	-0.39	27.16
53	4997.00	1.13	152.65	97.00	4996.22	6.48	6.48	N	3.12	E	7.19	25.74	0.91	0.00	47.36
54	5093.00	1.44	85.69	96.00	5092.20	5.73	5.73	N	4.76	E	7.45	39.72	1.50	0.32	-69.75
55	5190.00	3.27	23.29	97.00	5189.13	8.36	8.36	N	7.07	E	10.95	40.21	2.99	1.89	-64.33
56	5284.00	2.03	15.05	94.00	5283.03	12.43	12.43	N	8.56	E	15.10	34.56	1.38	-1.32	-8.77
57	5381.00	0.99	337.26	97.00	5379.99	14.87	14.87	N	8.69	E	17.22	30.30	1.43	-1.07	332.18
58	5477.00	0.66	279.39	96.00	5475.98	15.72	15.72	N	7.82	E	17.56	26.45	0.88	-0.34	-60.28
59	5573.00	0.03	67.10	96.00	5571.98	15.82	15.82	N	7.30	E	17.42	24.76	0.71	-0.66	-221.14
60	5669.00	0.54	242.17	96.00	5667.98	15.62	15.62	N	6.92	E	17.08	23.90	0.59	0.53	182.36
61	5766.00	0.81	200.36	97.00	5764.97	14.76	14.76	N	6.28	E	16.04	23.04	0.56	0.28	-43.10
62	5862.00	1.45	194.01	96.00	5860.96	12.95	12.95	N	5.75	E	14.17	23.94	0.68	0.67	-6.61
63	5958.00	1.75	175.33	96.00	5956.92	10.31	10.31	N	5.57	E	11.72	28.39	0.62	0.31	-19.46
64	5995.09	1.53	169.04	37.09	5993.99	9.26	9.26	N	5.71	E	10.88	31.68	0.77	-0.59	-16.96
65	6055.00	1.23	154.46	59.91	6053.89	7.89	7.89	N	6.14	E	10.00	37.89	0.77	-0.50	-24.34
66	6151.00	0.61	70.95	96.00	6149.88	7.13	7.13	N	7.07	E	10.04	44.75	1.36	-0.65	-86.99
67	6247.00	0.58	50.15	96.00	6245.87	7.61	7.61	N	7.93	E	10.99	46.17	0.23	-0.03	-21.67
68	6343.00	0.35	202.55	96.00	6341.87	7.65	7.65	N	8.19	E	11.20	46.94	0.94	-0.24	158.75
69	6439.00	0.64	178.47	96.00	6437.87	6.84	6.84	N	8.09	E	10.59	49.77	0.37	0.30	-25.08
70	6536.00	1.14	187.91	97.00	6534.85	5.35	5.35	N	7.97	E	9.60	56.15	0.54	0.52	9.73
71	6632.00	1.59	190.63	96.00	6630.83	3.09	3.09	N	7.59	E	8.20	67.85	0.47	0.47	2.83
72	6728.00	1.31	226.28	96.00	6726.80	1.02	1.02	N	6.55	E	6.63	81.13	0.97	-0.29	37.14



Company: EP Energy
Well: Flying Dutchman 5-17C4
Location: Duchesne, UT
Rig: Precision 406

Job Number: _____
Mag Decl.: _____
Dir Driller: _____
MWD Eng: _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates			Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	
							N/S (ft)		E/W (ft)	Distance (ft)	Direction Azimuth				
73	6824.00	1.37	216.28	96.00	6822.77	-0.66	0.66	S	5.08	E	5.12	97.40	0.25	0.06	-10.42
74	6920.00	1.81	213.32	96.00	6918.73	-2.85	2.85	S	3.57	E	4.57	128.62	0.47	0.46	-3.08
75	7015.00	2.33	199.26	95.00	7013.67	-5.93	5.93	S	2.11	E	6.29	160.42	0.76	0.55	-14.80
76	7055.36	2.46	196.55	40.36	7054.00	-7.53	7.53	S	1.59	E	7.70	168.07	0.43	0.32	-6.71
77	7111.00	2.64	193.25	55.64	7109.58	-9.93	9.93	S	0.96	E	9.97	174.49	0.42	0.32	-5.93
78	7208.00	3.04	190.23	97.00	7206.46	-14.63	14.63	S	0.01	W	14.63	180.04	0.44	0.41	-3.11
79	7303.00	2.76	183.68	95.00	7301.34	-19.39	19.39	S	0.60	W	19.40	181.79	0.46	-0.29	-6.89
80	7399.00	2.01	177.66	96.00	7397.26	-23.38	23.38	S	0.68	W	23.39	181.68	0.82	-0.78	-6.27
81	7496.00	2.04	170.37	97.00	7494.20	-26.78	26.78	S	0.33	W	26.79	180.70	0.27	0.03	-7.52
82	7592.00	2.36	175.67	96.00	7590.13	-30.44	30.44	S	0.11	E	30.44	179.80	0.39	0.33	5.52
83	7688.00	2.95	175.11	96.00	7686.02	-34.87	34.87	S	0.47	E	34.87	179.23	0.62	0.61	-0.58
84	7784.00	3.01	165.48	96.00	7781.89	-39.77	39.77	S	1.31	E	39.79	178.11	0.52	0.06	-10.03
85	7881.00	1.98	157.30	97.00	7878.80	-43.78	43.78	S	2.60	E	43.86	176.61	1.12	-1.06	-8.43
86	7976.00	2.13	160.59	95.00	7973.74	-46.96	46.96	S	3.82	E	47.12	175.35	0.20	0.16	3.46
87	8072.00	2.26	163.24	96.00	8069.67	-50.46	50.46	S	4.96	E	50.70	174.39	0.17	0.14	2.76
88	8168.00	2.71	162.76	96.00	8165.58	-54.44	54.44	S	6.17	E	54.79	173.53	0.47	0.47	-0.50
89	8264.00	1.18	168.05	96.00	8261.52	-57.57	57.57	S	7.05	E	58.00	173.02	1.60	-1.59	5.51
90	8361.00	1.03	194.16	97.00	8358.50	-59.40	59.40	S	7.04	E	59.81	173.24	0.54	-0.15	26.92
91	8457.00	1.69	163.24	96.00	8454.48	-61.59	61.59	S	7.24	E	62.01	173.29	1.00	0.69	-32.21
92	8552.00	2.22	166.07	95.00	8549.42	-64.71	64.71	S	8.09	E	65.22	172.88	0.57	0.56	2.98
93	8648.00	2.62	169.88	96.00	8645.34	-68.68	68.68	S	8.92	E	69.26	172.60	0.45	0.42	3.97
94	8743.00	2.69	154.09	95.00	8740.24	-72.82	72.82	S	10.28	E	73.54	171.97	0.77	0.07	-16.62
95	8840.00	1.43	106.50	97.00	8837.18	-75.21	75.21	S	12.43	E	76.23	170.61	2.09	-1.30	-49.06
96	8906.84	1.14	103.30	66.84	8904.00	-75.60	75.60	S	13.88	E	76.87	169.60	0.45	-0.43	-4.79
97	8936.00	1.01	101.33	29.16	8933.15	-75.72	75.72	S	14.41	E	77.08	169.22	0.46	-0.45	-6.76
98	8952.00	0.73	110.99	16.00	8949.15	-75.79	75.79	S	14.65	E	77.19	169.06	1.97	-1.75	60.38
99	9000.00	0.74	130.66	48.00	8997.15	-76.10	76.10	S	15.17	E	77.59	168.73	0.52	0.03	40.97
100	9100.00	1.28	170.38	100.00	9097.13	-77.62	77.62	S	15.85	E	79.22	168.46	0.86	0.54	39.73
101	9200.00	1.85	183.10	100.00	9197.10	-80.34	80.34	S	15.95	E	81.90	168.77	0.66	0.57	12.72
102	9300.00	2.36	192.54	100.00	9297.03	-83.96	83.96	S	15.41	E	85.36	169.60	0.61	0.51	9.44
103	9400.00	2.75	195.11	100.00	9396.93	-88.28	88.28	S	14.34	E	89.44	170.77	0.40	0.39	2.57
104	9500.00	2.91	193.39	100.00	9496.81	-93.06	93.06	S	13.13	E	93.98	171.97	0.19	0.17	-1.72
105	9600.00	2.88	193.69	100.00	9596.68	-97.97	97.97	S	11.95	E	98.70	173.05	0.03	-0.03	0.30
106	9700.00	2.92	194.96	100.00	9696.55	-102.88	102.88	S	10.69	E	103.43	174.07	0.07	0.04	1.27
107	9800.00	3.07	193.73	100.00	9796.42	-107.93	107.93	S	9.40	E	108.34	175.02	0.16	0.15	-1.22
108	9900.00	3.18	196.31	100.00	9896.27	-113.19	113.19	S	7.99	E	113.48	175.96	0.18	0.12	2.57
109	10000.00	3.01	194.50	100.00	9996.12	-118.40	118.40	S	6.55	E	118.58	176.83	0.20	-0.18	-1.81



Company: EP Energy
Well: Flying Dutchman 5-17C4
Location: Duchesne, UT
Rig: Precision 406

Job Number: _____
Mag Decl.: _____
Dir Driller: _____
MWD Eng: _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure Distance (ft)	Direction Azimuth	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)					
110	10100.00	3.00	189.96	100.00	10095.98	-123.52	123.52 S	5.44 E	123.64	177.48	0.24	-0.01	-4.54
111	10200.00	3.13	196.63	100.00	10195.84	-128.71	128.71 S	4.21 E	128.78	178.13	0.38	0.13	6.67
112	10300.00	3.13	194.47	100.00	10295.69	-133.97	133.97 S	2.74 E	134.00	178.83	0.12	0.00	-2.16
113	10400.00	3.25	188.17	100.00	10395.54	-139.41	139.41 S	1.66 E	139.42	179.32	0.37	0.12	-6.30
114	10500.00	3.16	189.65	100.00	10495.38	-144.93	144.93 S	0.80 E	144.93	179.69	0.12	-0.08	1.48
115	10600.00	3.31	185.43	100.00	10595.22	-150.52	150.52 S	0.06 E	150.52	179.98	0.28	0.14	-4.22
116	10700.00	2.98	189.19	100.00	10695.07	-155.96	155.96 S	0.63 W	155.96	180.23	0.39	-0.33	3.76
117	10800.00	2.88	192.04	100.00	10794.94	-160.98	160.98 S	1.57 W	160.99	180.56	0.17	-0.09	2.85
118	10900.00	3.00	192.97	100.00	10894.81	-165.99	165.99 S	2.68 W	166.01	180.92	0.13	0.12	0.93
119	10951.00	2.87	191.45	51.00	10945.74	-168.54	168.54 S	3.23 W	168.57	181.10	0.30	-0.26	-2.97
120	11048.00	2.87	191.45	97.00	11042.62	-173.30	173.30 S	4.19 W	173.35	181.39	0.00	0.00	0.00

CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 5-17C4
FLYING DUTCHMAN 5-17C4
DRILLING LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General

1.1 Customer Information

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 5-17C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 5-17C4
Rig Name/No.	PRECISION DRILLING/406	Event	DRILLING LAND
Start date	1/27/2015	End date	
Spud Date/Time	1/27/2015	UWI	FLYING DUTCHMAN 5-17C4
Active datum	KB @5,894.2ft (above Mean Sea Level)		
Afe No./Description	161260/53240 / FLYING DUTCHMAN 5-17C4		

2 Summary

2.1 Operation Summary

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
1/22/2015	6:00	6:00	24.00	CASSURF	24		P	0.0	SET 57' 20" STRUCTURAL, SET MOUSE HOLE @ 80'. DRILLED 12¼" HOLE TO 2,037'. RAN & CMT 2018' 9-5/8" 40# N-80 LT&C. FC @ 1,971', SHOE @ 2018'. ADDED RKB CORRECTION FOR PD 406.
1/25/2015	6:00	6:00	24.00	MIRU	01		P	2,037.0	MOVED F/ EP ENERGY 8-20C4 T/ FLYING DUTCHMAN 5-17C4. 100% OFF OLD LOCATION. 95% SPOTTED ON NEW LOCATION. 15% RIGGED UP.
1/26/2015	6:00	4:00	22.00	MIRU	01		P	2,037.0	RIG UP. PREP & RAISE DERRICK. RU FLOOR, PU TDU. PERFORM RIG INSPECTION. RIG ON RATE @ 04:00 HRS 1/26/15.
	4:00	6:00	2.00	CASSURF	28		P	2,037.0	NU 11" 10M BOPE.
1/27/2015	6:00	13:00	7.00	CASSURF	28		P	2,037.0	NU 11" 10M BOPE & INSTALLED FLOW LINE.
	13:00	22:00	9.00	CASSURF	19		P	2,037.0	TESTED 11" 5M ANNULAR TO 250 / 2,500 PSI AND REMAINING BOPE, FLOOR VALVES, ETC TO 250 / 5,000 PSI. TESTED CHOKE MANIFOLD TO 250 / 10,000 PSI. HELD EACH TEST 10 MINUTES. ATTEMPT TO TEST BACK TO THE PUMPS. LOOK FOR LEAK. SWIVEL LEAKING. FIX SWIVEL AND RETEST. TEST GOOD.
	22:30	23:30	1.00	CASSURF	31		P	2,037.0	TEST CASING TO 2,500 PSI FOR 30 MINUTES. TEST GOOD.
	23:30	0:00	0.50	CASSURF	28		P	2,037.0	INSTALLED WEAR BUSHING.
	0:00	5:30	5.50	CASSURF	14		P	2,037.0	PJSM. PU WFT DIRECTIONAL TOOLS. USED PROTRACTOR SHOWING 1.5 DEG BEND ON MUD MOTOR. PU BIT #1 & 8¼" BHA . TIH.
	5:30	6:00	0.50	CASSURF	13		P	2,037.0	INSTALLED ROTATING ELEMENT.
1/28/2015	6:00	8:30	2.50	CASSURF	17		P	2,037.0	SLIP & CUT DRILL LINE.
	8:30	9:00	0.50	CASSURF	31		P	2,037.0	PRE FIT CASING TEST.
	9:00	10:00	1.00	CASSURF	32		P	2,037.0	DRILLED CEMENT & FLOAT EQUIPMENT. DRILLED 10' NEW FORMATION.
	10:00	10:30	0.50	DRLINT1	33		P	2,047.0	PREFORMED FIT. 15.4 PPG EMW 640 PSI W/ 9.3 PPG. SPUD WELL IN @ 10:30 HRS 01-27-15.
	10:30	14:30	4.00	DRLINT1	07		P	2,047.0	DRILLED F/ 2,047' T/ 2,651'.
	14:30	15:00	0.50	DRLINT1	12		P	2,651.0	SERVICED RIG & TD.
	15:00	20:30	5.50	DRLINT1	07		P	2,651.0	DRILLED F/ 2,651' T/ 3,515'.
	20:30	21:00	0.50	DRLINT1	12		P	3,515.0	SERVICED RIG & TD.
	21:00	4:30	7.50	DRLINT1	07		P	3,515.0	DRILLED F/ 3,515' T/ 4,287'.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duratio n (hr)	Phase	Activit y	Sub	OP Code	MD from (ft)	Operation
1/29/2015	4:30 5:30	1.00	DRLINT1	45		N	4,287.0	WORKING ON #1 PUMP.
	5:30 6:00	0.50	DRLINT1	07		P	4,287.0	DRILLED F/ 4,287' T/ 4,387'.
	6:00 9:00	3.00	DRLINT1	07		P	4,387.0	DRILLED F/ 4,387' T/ 4,771'.
	9:00 9:30	0.50	DRLINT1	12		P	4,771.0	SERVICED RIG & TD.
	9:30 23:30	14.00	DRLINT1	07		P	4,771.0	DRILLED F/ 4,771' T/ 6,214'. HOLE SEEPING @ 6,150'. PUMPED LCM SWEEPS TO CONTROL MUD LOSSES.
	23:30 0:00	0.50	DRLINT1	12		P	6,214.0	SERVICED RIG & TD.
	0:00 6:00	6.00	DRLINT1	07		P	6,214.0	DRILLED F/ 6,214' T/ 6,695'.
1/30/2015	6:00 17:30	11.50	DRLINT1	07		P	6,695.0	DRILLED F/ 6,695' T/ 7,398'.
	17:30 18:00	0.50	DRLINT1	12		P	7,398.0	SERVICED RIG & TD.
	18:00 23:00	5.00	DRLINT1	07		P	7,398.0	DRILLED F/ 7,398' T/ 7,761'.
	23:00 23:30	0.50	DRLINT1	12		P	7,761.0	SERVICED RIG & TD.
	23:30 6:00	6.50	DRLINT1	07		P	7,761.0	DRILLED F/ 7,761' T/ 7,944'.
1/31/2015	6:00 14:30	8.50	DRLINT1	07		P	7,944.0	DRILLED F/ 7,944' T/ 8,520'.
	14:30 15:00	0.50	DRLINT1	12		P	8,520.0	SERVICED RIG & TD.
	15:00 0:00	9.00	DRLINT1	07		P	8,520.0	DRILLED F/ 8,520' T/ 8,999'.
	0:00 0:30	0.50	DRLINT1	12		P	8,999.0	SERVICED RIG & TD.
	0:30 1:00	0.50	DRLINT1	07		P	9,015.0	DRILLED F/ 8,999' T/ 9,015'. INTERMEDIATE TD @ 01:00 HRS 01-31-2015.
	1:00 4:30	3.50	DRLINT1	15		P	9,015.0	CIRC BU. SIMULATE CONNECTION CHECKED FLOW (NEG). CIRC BU. RMW F/ 10.2 PPG T/ 10.3 PPG. BU GAS 964 UNITS (PASON), 180 UNITS (MUD IOGGER). BACK GROUND GAS 120 UNITS.
	4:30 6:00	1.50	DRLINT1	13		P	9,015.0	CHECKED FLOW (NEG). WIPER TRIP. PULLED 10 STANDS. PUMPED SLUG, BLOW DOWN TOP DRIVE.
2/1/2015	6:00 19:00	13.00	DRLINT1	13		P	9,015.0	WIPER TRIP. BACKREAMED F/ 6,810' T/ 1,000'. FLOW CK 6,000', 4,000', 2,000' & 900'. LOST 250 BBLS MUD.
	19:00 20:30	1.50	DRLINT1	14		P	9,015.0	LD DIRCTIONAL TOOLS.
	20:30 21:00	0.50	DRLINT1	12		P	9,015.0	CLEANED RIG FLOOR & SERVICED TD.
	21:00 6:00	9.00	DRLINT1	13		P	9,015.0	RR BIT #1. TRIP IN HOLE. BREAK CIRC EVERY 1000'. CIRC BU EVERY 2000'. WASHED & REAMED (4,017 - 4,030'), (4,157' - 4,188').
2/2/2015	6:00 11:00	5.00	DRLINT1	13		P	9,015.0	WIPER TRIP. RR BIT #1. TRIP IN HOLE. BREAK CIRC EVERY 1000'. CIRC BU EVERY 2000'. WASHED & REAMED (6,730 - 6,760'), (7,510' - 7,503') (8,750 - 8,784')
	11:00 16:00	5.00	DRLINT1	15		P	9,015.0	C & C MUD. MAX GAS = 8,873 UNITS.. HAD 1-3 FT FLARE ON BU. RAISE MW F/ 10.3 PPG T/ 10.5 PPG. FLOW CK. PUMP SLUG. BACK GROUND GAS 228 UNITS.
	16:00 4:30	12.50	DRLINT1	14		P	9,015.0	LD DP. BACKREAMED (6,700' - 6,690'), (6,585' - 6,570'), (6,555' - 6,429'). CHECKED FLOW 9,015', 6,800', 4,000', 2,000' & 900'.
	4:30 5:00	0.50	DRLINT1	42		P	9,015.0	PULLED WEAR BUSHING.
	5:00 5:30	0.50	DRLINT1	12		P	9,015.0	CLEANED RIG FOR LOGGING OPERATIONS.
	5:30 6:00	0.50	EVLINT1	22		P	9,015.0	PJSM. RU HES LOGGING UNIT.
	6:00 11:00	5.00	EVLINT1	22		P	9,015.0	FINISHED RU HES LOGGING UNIT & LOG W/ STANARD QUAD COMBO. WIRELINE DEPTH @ 8,998'. RD HES LOGGING UNIT. LOWERED MW 10.5 PPG T/ 10.0 PPG.
2/3/2015	11:00 13:00	2.00	CASINT1	24		P	9,015.0	PJSM. RU FRANKS CSG CREW. CHANGED OUT BAILS & ELEAVATORS.
	13:00 6:00	17.00	CASINT1	24		P	9,015.0	CHECK FLOAT EQUIPMENT & RUN 7" 20# ICP-110 LT&C CSG @ 7,029'. STAGE IN HOLE 50-60' FPM. BREAK CIRC EVERY 500' & CIRC BU EVERY 1000'. MAX GAS = 9200 UNITS. NO FLARE.

2/4/2015

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:00 15:00	9.00	CASINT1	24		P	9,015.0	RAN A TOTAL OF 208 JTS 1 MKR PUP 9,007' OF 7" 29# HCP-110 LT&C CSG MKR PUP 7060' / 7069', FLOAT COLLAR: 8964', FLOAT SHOE: 9007' STAGE IN HOLE AT 50' / 60' FPM. BREAK CIRC EVERY 500' & CIRC BU EVERY 1000'. MAX GAS SEEN = 9289 UNITS. NO FLARE. TAGGED UP AT 9020'. R/D FRANKS CSG.
	15:00 17:00	2.00	CASINT1	15		P	9,015.0	CIRCUALTE BOTTOMS UP FOR CEMENTING.
	17:00 20:00	3.00	CASINT1	25		P	9,015.0	M&P PUMPED 40 BBLS 11.5 PPG TUNED SPACER . 725 SXS (246 BBLS) EXTENDACHEM LEAD CMT @ 12.5 PPG, 1.91 YLD TAILED WITH 300 SXS (87.0 BBLS) OF EXPANDACHEM CMT @ 13 PPG, 1.64 YIELD. RELEASED TOP PLUG. DISPLACED WITH 333 BBLS OF 10.0 PPG MUD @ 5 - 3 BPM. BUMPED PLUG @ 19:26 HRS 02/03/15 WITH 1970 PSI. 2 BBL BLED BACK, FLOATS HELD. RD CEMENTERS. LOST 204 BBLS DURING CMT OPS. HAD PARTIAL RETURNS. EST TOC 4,213'.
	20:00 21:00	1.00	CASINT1	27		P	9,015.0	LD LANDING JT. INSTALLED & TESTED PACK-OFF TO 5,000 PSI FOR 15 MIN.
	21:00 23:00	2.00	CASINT1	42		P	9,015.0	CHANGED OUT SAVER SUB & PREPARED RIG FLOOR FOR 4" EQUIPMENT.
	23:00 0:00	1.00	CASINT1	31		P	9,015.0	TEST CSG TO 2,500 PSI FOR 30 MIN.
	0:00 5:00	5.00	CASINT1	19		P	9,015.0	RU TESTER. TESTED BOPE, FLOOR VALVES, ETC TO 250 / 10,000 PSI. TESTED ANNULAR TO 250 / 4,000 PSI. HELD EACH TEST 10 MIN.
	5:00 6:00	1.00	DRLPRD	14		P	9,015.0	MU PACKED HOLE BHA.
	6:00 14:00	8.00	CASINT1	14		P	9,015.0	PU 6-1/8" BHA & 4" DP TO 8,900'.
2/5/2015	14:00 15:00	1.00	CASINT1	17		P	9,015.0	S&C DRILL LINE.
	15:00 15:30	0.50	CASINT1	12		P	9,015.0	SERVICED RIG & TDU.
	15:30 18:00	2.50	CASINT1	32		P	9,015.0	TAG FC @ 8,956'. DRILL OUT FE, SHOE TRACK & 10'.
	18:00 19:00	1.00	CASINT1	33		P	9,025.0	CBU & PERFORM FIT TO 15.4 EMW WITH 10.5 PPG MUD @ 2,300 PSI.
	19:00 20:00	1.00	DRLPRD	07		P	9,025.0	DRILLED 9,025' - 9,180'.
	20:00 20:30	0.50	DRLPRD	12		P	9,180.0	SERVICED RIG & TDU.
	20:30 23:00	2.50	DRLPRD	07		P	9,180.0	DRILLED 9,180' - 9,562'.
	23:00 23:30	0.50	DRLPRD	15		P	9,562.0	CBU.
	23:30 0:30	1.00	DRLPRD	11		P	9,562.0	WL SURVEY 2.79 @ 9,531'.
	0:30 6:00	5.50	DRLPRD	07		P	9,562.0	DRILLED 9,562' - 10,133'.
2/6/2015	6:00 12:00	6.00	DRLPRD	07		P	10,133.0	DRILLED 10,133' - 10,796'.
	12:00 12:30	0.50	DRLPRD	12		P	10,796.0	SERVICED RIG & TDU. NOTICED MUD LEAKING FROM SWIVEL CONNECTION TO TDU.
	12:30 16:30	4.00	DRLPRD	43		N	10,796.0	INSTALL CIRC SWEDGE & CIRC WHILE REMOVE & INSPECT SWIVEL. PERFORMED BLACK LIGHT INSPECTION (NO CRACKS FOUND) REFACED BOX CONNECTION & CHANGED OUT XO. INSTALLED SWIVEL.
	16:30 19:30	3.00	DRLPRD	07		P	10,796.0	DRILLED 10,796' - 11,048'.
	19:30 23:00	3.50	DRLPRD	58		N	11,048.0	TORQ SPIKE TO 11,690. ROP DROPPED FROM 64' TO 0'. SIMULATE A CONNECTION. CBU. INCREASE MW FROM 11.9+ TO 12.2 PPG. FC. WELL STATIC.
	23:00 6:00	7.00	DRLPRD	13		P	11,048.0	POOH. FC @ SHOE, 4,500' & BHA.
2/7/2015	6:00 9:00	3.00	EVLPRD	14		P	11,048.0	LD BHA.
	9:00 13:30	4.50	EVLPRD	22		P	11,048.0	PJSM. RU & RAN HES ULTRA SLIM QUAD COMBO TO 11,037' & LOG UP TO SHOE. RD WL.
	13:30 17:30	4.00	CASPRD1	24		P	11,048.0	PJSM. RU & RAN 52 JTS 5" 18# P-110HC STL LINER. 2 MARKER JTS. MADE UP VERSAFLEX LINER HANGER ASSEMBLY & SETTING TOOL.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	17:30 18:30	1.00	CASPRD1	15		P	11,048.0	CIRC LINER VOLUME @ 2.5 BPM. RD CSG CREW. INSTALLED RH ELEMENT.
	18:30 6:00	11.50	CASPRD1	13		P	11,048.0	TIH W/ 5" LINER ON 4" DP @ 90-50 FPM, DRIFTING PIPE FROM DERRICK. BREAK CIRC EVERY 1,000'. CBU @ SHOE & 10,000'.
2/8/2015	6:00 9:00	3.00	CASPRD1	15		P	11,048.0	CIRC 2X BU. INITIAL RATE 1 BPM, INCREASED TO 2.5 BPM, PRESSURE LEVELED OFF AFTER 25 MIN. MAX GAS 5,737 UNITS FOR 55 MINUTES. MUD CUT TO 11.5 PPG. 10-5' FLARE FOR 20 MIN, NO GAIN. BG GAS 988 UNITS. FINAL CIRC PRESSURE 755 PSI @ 2.5 BPM. NO LOSSES DURING CIRCULATION.
	9:00 11:00	2.00	CASPRD1	25		P	11,048.0	RU HES & TESTED LINES TO 9,000 PSI. PUMPED 20 BBLS 12 PPG TUNED SPACER & 175 SKS (47.4 BBLS) 14.2 PPG WITH 1.52 YIELD EXPANDACEM CMT. WASHED LINES. DROPPED DP DART. PUMPED 50 BBLS H2O WITH 2% KCL 0.1 % BIOCID, 78.2 BBLS 11.8 PPG MUD. BUMPED PLUG WITH 2,937 PSI @ 11:13 HRS 02/07/15. CHECKED FLOATS, FLOATS HELD, 1.5 BBLS BLED BACK. NO LOSSES DURING CMT OPS. EST TOC 8,849.
	11:00 11:30	0.50	CASPRD1	25		P	11,048.0	RELEASED BALL, RUPTURE DISC @ 5,724 PSI. PUMPED 44.8 BBLS, PRESSURED TO 7,460 PSI, EXPANDED HANGER. PULL TESTED LINER WITH 80K OVERPULL. SAT DOWN 70K , RELEASED SETTING TOOL FROM LINER HANGER. LANDED FS @ 11,045', FC @ 11,002', LC @ 11,000'. TOL @ 8,849'. 151' OF LAP. TOTAL LINER 2,211'. MARKER JT TOPS @ 10,034' & 9,119'.
	11:30 12:30	1.00	CASPRD1	15		P	11,048.0	PULLED UP TO TOL. OBSERVED 2 OVERPULLS OF 4K THROUGH CLAD SECTION. CIRC 1.5 TIMES ANNULAR VOLUME. 20 BBLS WEIGHTED SPACER & 10 BBLS WEIGHTED CEMENT TO SURFACE. POSITIVE TEST TOL TO 1,000 PSI FOR 10MIN.
	12:30 14:30	2.00	CASPRD1	15		P	11,048.0	PUMPED 280 BBLS H2O WITH NO ADDITIVES, 290 BBLS H2O WITH 2% KCL 0.1 % BIOCID TILL CLEAN RETURNS. RD HES.
	14:30 15:00	0.50	CASPRD1	12		P	11,048.0	SERVICED RIG & TDU.
	15:00 0:30	9.50	CASPRD1	14		P	11,048.0	POOH LAYING DOWN 4" DP.
	0:30 4:30	4.00	CASPRD1	29		P	11,048.0	ND BOPE.
	4:30 6:00	1.50	CASPRD1	27		P	11,048.0	INSTALL TBG HEAD & FRAC VALVE. TESTED HEAD TO 5,000 PSI FOR 10MIN. RIG RELEASED @ 06:00 HRS 02/08/15.
2/9/2015	6:00 6:00	24.00	RDMO	02		P	11,048.0	PJSM. RD & PREP RIG FOR MOVE TO THE ANDERSON 2-21C4. 100% RIGGED DOWN.

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CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 5-17C4
FLYING DUTCHMAN 5-17C4
COMPLETION LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General

1.1 Customer Information

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 5-17C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 5-17C4
Rig Name/No.		Event	COMPLETION LAND
Start date	2/17/2015	End date	
Spud Date/Time	1/27/2015	UWI	FLYING DUTCHMAN 5-17C4
Active datum	KB @5,894.2ft (above Mean Sea Level)		
Afe No./Description	161260/53240 / FLYING DUTCHMAN 5-17C4		

2 Summary

2.1 Operation Summary

Date	Time Start-End		Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
2/17/2015	12:00	14:00	2.00	MIRU	01		P		ROAD RIG FROM 4-21B4, TO LOC, SPOT IN & RIG UP RIG
	14:00	15:30	1.50	WOR	16		P		ND 10K NIGHT OFF OF 7" 10K FRAC VALVE, NU 5K BOP ON TOP OF 7" 10K FRAC VALVE, RU WORK FLOOR & TBG TONGS
	15:30	18:00	2.50	WOR	24		P		TALLY MU & RIH W/ 4-1/8" ROCK BIT, 2-3/8" EUE X 2-3/8" REG BIT SUB, RIH P.U. 72 JTS 2-3/8" EUE L-80 TBG, 2-7/8" X 2-3/8" EUE X OVER & 79 JTS 2-7/8" EUE L-80 TBG, CLOSE & LOCK PIPE RAMS, CLOSE CSG VALVES w NIGHT CAPS, INSTALL & CLOSE TIW VALVE W/ NIGHT CAP SDFN, EOT @ 4850'
2/18/2015	6:00	7:30	1.50	WOR	28		P		CT HOLD SAFETY MTG ON P.U. TBG & OVER HEAD LOADS, WRITE & REVIEW JSA'S
	7:30	10:30	3.00	WOR	24		P		0 PSI ON WELL, CONT TALLYING & P.U. 190 JTS 2-7/8" TBG & TAG @ 10979'
	10:30	14:30	4.00	WOR	10		P		RU POWER SWIVEL, BEGIN CIRCULATING & CLEAN OUT TO LANDING COLLAR @ 10998', CIRC WELL BORE CLEAN W/ 375 BBLS 2% KCL
	14:30	18:00	3.50	WOR	24		P		RD POWER SWIVEL, POOH LAYING DWN 167 JTS 2-7/8" EUE L-80 TBG, SHUT & LOCK PIPE RAMS, INSTALL & CLOSE TIW VALVE & NIGHT CAP IN TBG, SHUT CSG VALVES & NIGHT CAP, EOT @ 6240', SDFN
2/19/2015	6:00	7:30	1.50	WOR	28		P		CT HOLD SAFETY MTG ON, LAYING DWN TBG & PINCH POINTS, WRITE & REVIEW JSA'S
	7:30	10:30	3.00	WOR	24		P		0 PSI ON WELL, CONT TOOH L.D. 103 JTS 2-7/8" TBG, X OVER, 71 JTS 2-3/8" TBG, BIT SUB & 4-1/8" ROCK BIT
	10:30	12:30	2.00	WOR	16		P		RD TBG TONGS & WORK FLOOR, NDBOP OFF OF 7" 10K FRAC VALVE, RIG DWN RIG, PU LOC, ROAD RIG TO 3-6C4
	12:30	16:00	3.50	WLWORK	18		P		MIRU CUTTERS W.L. RIH W/ CBL/CCL/GR & TAG @ 10976', POOH LOGGING W/ 4000 PSI ON CSG FROM 10976' TO 2000', TOOH LD LOGGING TOOLS, SHUT IN FRAC VALVE, NU NIGHT CAP, CLOSE CSG VALVES & INSTALL NIGHT CAPS, RIG DWN WIRE LINE, SDFN
2/20/2015	6:00	6:30	0.50	MIRU	01		P		CT TGSM & JSA (NU PROCEDURES)

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:30 12:30	6.00	MIRU	16		P		PRESSURE TEST AND CHART 7" CASING TO 9000 PSI FOR 30 MINUTES. (MONITORING 9 5/8") GOOD TEST NU FRAC STACK TEST TO 9000 PSI. SHUT AND NIGHT CAP CASING AND SURFACE CASING VALVES. SHUT FRAC VALVE, SHUT AND LOCK HCR VALVES.
	12:30 14:30	2.00	MIRU	01		P		RU AND TEST FLOW BACK LINES TO 4600 PSIG. SHUT FLOW CROSS AND INSTALL NIGHT CAP.
2/21/2015	6:00 7:00	1.00	STG01	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS...CONTINUE FILLING FRAC TANKS
	7:00 9:00	2.00	STG01	21		P		MIRU WIRELINE
	9:00 11:00	2.00	STG01	21		P		P/U TIH PERFORATE STG 1 PER THE ATTACHED SCHEDULES 10914'-10630' STARTING PRESSURE 0 PSI ENDING PRESSURE 0 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015 SECURE WELL 1ST HRC CLOSED AND LOCKED 2ND HRC CLOSED AND LOCKED 7" MASTER VALVE SHUT 7" CSG VALVE CLOSED w NIGHT CAPS FLOW CROSS VALVES CLOSED w NIGHT CAPS 9 5/8" CSG VALVE CLOSED w BULL PLUGS
	11:00 18:00	7.00	SITEPRE	01		P		R/U WATER TRANSFER LINES START HAULING IN FRAC SAND CONTINUE FILL FRAC TANKS
2/23/2015	6:00 16:00	10.00	SITEPRE	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; HEATING WATER...R/U HOT OIL TRUCK HESAT FRAC WATER
2/24/2015	6:00 7:00	1.00	MIRU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIGGING UP FRAC EQUIP
	7:00 11:55	4.92	MIRU	01		P		MIRU FRAC EQUIPMENT
	11:55 13:50	1.92	STG01	35		P		STAGE 1; PRESSURE TEST LINES TO 9452 PSI. OPEN WELL. SICP 132 PSI. BREAK DOWN STAGE 1 PERFORATIONS 10914'-10630' AT 4903 PSI 7.2 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 4345 PSI. F.G. .83...5 MINUTE 4156 PSI. 10 MINUTE 4134 PSI. 15 MINUTE 4109 PSI. TREAT STAGE 1... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH PAD 0.5# 100M SWEEP .5# TLC 30/50 1# TLC 30/50 2# TLC 30/50 3# TLC 30/50 STG FLUSH TO TOP PERF...ISDP 4513 PSI. AVG RATE 77 BPM. AVG PSI 5266 PSI. MAX PSI 8200 PSI. TTL TLC 30/50 153380# TURN OVER TO WIRELINE
	13:50 15:00	1.17	STG02	21		P		STAGE 2; SET COMPOSITE FRAC PLUG AT 10607' PRESSURE ON WELL 4500 PSI PERFORATE STAGE 2 PERFORATIONS 10592' TO 10342', 23 NET FEET 63 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 4400 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015
	15:00 16:43	1.72	STG02	35		P		STAGE 2; PRESSURE TEST LINES TO 9490 PSI. OPEN WELL. SICP 4420 PSI. BREAK DOWN STAGE 2 PERFORATIONS 10592'-10342' AT 4685 PSI 10 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 4463 PSI. F.G. .85...5 MINUTE 4460 PSI. 10 MINUTE 4445 PSI. 15 MINUTE 4435 PSI. TREAT STAGE 2... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH PAD 0.5# 100M SWEEP .5# TLC 30/50 1# TLC 30/50 2# TLC 30/50 3# TLC 30/50 STG FLUSH TO TOP PERF...ISDP 4635 PSI. AVG RATE 76 BPM. AVG PSI 5599 PSI. MAX PSI 7524 PSI. TTL TLC 30/50 152800# TURN OVER TO WIRELINE

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
2/25/2015	16:43 17:56	1.22	STG03	21		P		STAGE 3; SET COMPOSITE FRAC PLUG AT 10325' PRESSURE ON WELL 4500 PSI PERFORATE STAGE 3 PERFORATIONS 10310' TO 10068', 22 NET FEET 66 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 4400 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015
	17:56 19:30	1.57	STG03	35		P		STAGE 3; PRESSURE TEST LINES TO 9490 PSI. OPEN WELL. SICP 4256 PSI. BREAK DOWN STAGE 3 PERFORATIONS 10310' TO 10068' AT 4599 PSI 10 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 4370 PSI. F.G. .86...5 MINUTE 4327 PSI. 10 MINUTE 4315 PSI. 15 MINUTE 4301 PSI. TREAT STAGE 3... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH PAD 0.5# 100M SWEEP .5# TLC 30/50 1# TLC 30/50 2# TLC 30/50 3# TLC 30/50 STG FLUSH TO TOP PERF...ISDP 4452 PSI. AVG RATE 79 BPM. AVG PSI 5520 PSI. MAX PSI 7310 PSI. TTL TLC 30/50 153580# TURN OVER TO WIRELINE
	19:30 21:00	1.50	STG04	21		P		STAGE 4; SET COMPOSITE FRAC PLUG AT 10050' PRESSURE ON WELL 4200 PSI PERFORATE STAGE 4 PERFORATIONS 10035' TO 9769', 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 4000 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015 SECURE WELL 1ST HRC CLOSED AND LOCKED 2ND HRC CLOSED AND LOCKED 7" MASTER VALVE SHUT 7" CSG VALVE CLOSED w NIGHT CAPS FLOW CROSS VALVES CLOSED w NIGHT CAPS 9 5/8" CSG VALVE CLOSED BALL VALVE CLOSED
	21:00 6:00	9.00	STG04	35		P		REFILL AND HEAT STG AREA FRAC TANKS
	6:00 8:30	2.50	STG04	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; FRAC OPERATIONS...START AND PRIME TRUCKS AND LINES
2/25/2015	8:30 9:56	1.43	STG04	35		P		STAGE 4; PRESSURE TEST LINES TO 9488 PSI. OPEN WELL. SICP 3337 PSI. BREAK DOWN STAGE 4 PERFORATIONS 10035' TO 9769' AT 4778 PSI 9 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 4045 PSI. F.G. .84...5 MINUTE 3908 PSI. 10 MINUTE 3890 PSI. 15 MINUTE 3860 PSI. TREAT STAGE 4... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH PAD 0.5# 100M SWEEP .5# TLC 30/50 1# TLC 30/50 2# TLC 30/50 3# TLC 30/50 STG FLUSH TO TOP PERF...ISDP 4613 PSI. AVG RATE 75 BPM. AVG PSI 5351 PSI. MAX PSI 6587 PSI. TTL TLC 30/50 154000# TURN OVER TO WIRELINE
	9:56 13:10	3.23	STG04	21		P		STAGE 5; ATTEMPT TO SET COMPOSITE FRAC PLUG AT 9751' PRESSURE ON WELL 3500 PSI PLUG PARTIALLY SET WORK TO FREE PLUG FAILED PULLED OUT OF ROPE SOCKET TOH w LINE R/D WIRELINE SECURE WELL 1ST HRC CLOSED AND LOCKED 2ND HRC CLOSED AND LOCKED 7" MASTER VALVE SHUT 7" CSG VALVE CLOSED w NIGHT CAPS FLOW CROSS VALVES CLOSED w NIGHT CAPS 9 5/8" CSG VALVE CLOSED BALL VALVE CLOSED DRAIN PUMPS AND LINES RELEASE FRAC CREW
	13:10 15:30	2.33	BL	52		N		MIRU 60 TON CRANE MIRU BRAIDED LINE TRUCK P/U ADDITION LUBRICATOR

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
2/26/2015	15:30 20:30	5.00	BL	52		N		OPEN WELL 2000 PSI TIH w OS DRESSED w 1 7/16" GRAPPLE JAR SPANG JAR 2-WT BARS ON BRAIDED LINE ENGAGE FISH AT 9733' BLMD PULLED OFF UNABLE TO GET LATCHED BACK ON TOH w GRAPPLE (GRAPPLE LOOKED GOOD NO MARKS) TIH w NEW 1 7/16" GRAPPLE ENGAGE FISH PULL OVER PULLED OFF UNABLE TO LATCH FISH TOH JDC HAD SHEARED LEFT OS IN HOLE
	20:30 2:07	5.62	FB	17		N		P/U REDRESSED JDC TIH w JAR SPANG JAR 2-WT BARS ON BRAIDED LINE ENGAGE FISH AT 9731' BLMD PULL OVER PULLED OFF THREE TIMES UNABLE TO GET LATCHED UP TOH JDC WAS SHEARED OS STILL IN HOLE P/U TIH w REDRESSED JDC ENGAGE FISH PULL OVER PULLED OFF UNABLE TO GET LATCHED BACK ON TOH RECOVERED OS L/D FISHING TOOLS AND LUBRICATOR
	2:07 6:00	3.88	FB	17		N		FLOW BACK WELL
	6:00 6:30	0.50	FB	28		N		HELD SAFETY MEETING ON FLOWBACK PROCEDURES FILLED OUT JSA.
	6:30 10:00	3.50	FB	19		N		CONTINUED FLOWING WELL 0 WELL PRESSURE. RECOVERED 200 BBLS H2O. CHANGED OUT GREASE TUBES IN LUBRICATOR.
	10:00 17:00	7.00	WLWORK	52		N		RIH W/ OS DRESSED W/ 1 7/16" GRAPPLE, COULDN'T GET PAST 890', PULLED OUT, CHANGED GREASE TUBES TO NEXT SIZE BIGGER. RIH W/ OS DRESSED W/ 1 7/16" GRAPPLE. LATCHED ONTO FISH TOP @ 9733'. OS KEPT PULLING OFF WHEN JARS WENT OFF. PULLED OUT. JDC SHEARED. REBUILT JDC, RIH TRIED TO FISH OS. PULLED OUT WITHOUT OS. RIH TRIED TO FISH OS. PULLED 300 LBS OVER PULLED OUT STILL NO OS. REBUILT DIFFERENT JDC. RIH TRIED TO FISH OS. LATCHED ONTO FISH TOP PULLED 2000 LBS OVER. SET JARS OFF PULLED OFF FISH TOP. PULLED OUT WITH OVER SHOT.
	17:00 18:30	1.50	RDMO	02		N		CLOSED IN WELL. 1ST HRC CLOSED AND LOCKED 2ND HRC CLOSED AND LOCKED 7" MASTER VALVE SHUT 7" CSG VALVE CLOSED w NIGHT CAPS FLOW CROSS VALVES CLOSED w NIGHT CAPS 9 5/8" CSG VALVE CLOSED BALL VALVE CLOSED. RD WIRELINE EQUIPMENT.
2/27/2015	18:30 20:00	1.50	MIRU	01		N		MOVE IN AND SPOT 2" COIL TBG EQUIPMENT. SDFN.
	6:00 7:00	1.00	MIRU	28		N		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIGGING UP COIL TBG
	7:00 14:00	7.00	CTU	52		N		RIG UP COIL TBG P/U FISHING ASSEMBLY w OS DRESSED w 2 3/4" GRAPPLE TEST COIL TBG FLOW BACK LINE AND LUBRICATOR TEST GOOD
	14:00 19:30	5.50	CTU	52		N		OPEN WELL 1000 PSI PRESSURE BLEED RIGHT OFF TO 0 PSI TIH w COIL TBG ATTEMPT TO GET IN LINER AT 8843' CTMD FAILED CYCLED OUT TOH
	19:30 21:00	1.50	CTU	52		N		CUT 50' OF CUT OFF P/U CUT LIP GUIDE 3 11/16" OS DRESSED w 2 3/4" SPIRAL GRAPPLE 2 7/8" MOTOR 2 7/8" JAR TEST COIL TBG LUBRICATOR FLOW BACK LINES GOOD
	21:00 1:56	4.93	CTU	52		N		OPEN WELL 950 PSI BLEED OFF TO 0 PSI TIH w COIL TBG ROTATE INTO LINER AT 8843' CTMD ENGAGE FISH 9898' CTMD JAR FISH FREE TOH
	1:56 6:00	4.07	CTU	52		N		START RIGGING DOWN COIL TBG
2/28/2015	6:00 8:28	2.47	CTU	52		N		FINISH RIGGING DOWN COIL TBG AND MOVE OFF LOCATION
	8:28 9:30	1.03	STG05	21		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS...MIRU WIRELINE HSM w FRAC CREW...FRAC OPERATIONS

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	9:30 12:43	3.22	STG05	21		P		OPEN WELL 1150 PSI P/U 4" GAUGE RING JUNK BASKET TIH TO 9760' TOH L/D GAUGE RING P/U TIH SET 5" PLUG AT 9751' AND PERFORATE STG 5 9736' TO 9467' 23 NET FEET 66 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 1200 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015 TOH L/D SETTING TOOL
	12:43 14:57	2.23	STG05	35		P		STAGE 5; PRESSURE TEST LINES TO 9780 PSI. OPEN WELL. SICP 1344 PSI. BREAK DOWN STAGE 5 PERFORATIONS 9736' TO TO 9467' AT 5342 PSI 12 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 5342 PSI. F.G. .87...5 MINUTE 3721 PSI. 10 MINUTE 3475 PSI. TREAT STAGE 5... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH 3000# 100 MESH IN .5 PPG STAGE AND 150040 30/50 TLC IN .5,1,2,3# STAGES.ISDP 4258PSI. AVG RATE 73.3 BPM. AVG PSI 5056 PSI. MAX PSI 6847 PSI. FLUID TO RECOVER 3698 BBLs SWI TURN OVER TO WIRELINE
	14:57 16:24	1.45	STG06	21		P		STAGE 6; SET COMPOSITE FRAC PLUG AT 9453' PRESSURE ON WELL 3400 PSI PERFORATE STAGE 6 PERFORATIONS 9438' TO 9215', 23 NET FEET 63 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3300 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015
	16:24 17:40	1.27	STG06	35		P		STAGE 6; PRESSURE TEST LINES TO 9780 PSI. OPEN WELL. SICP 3226 PSI. BREAK DOWN STAGE 6 PERFORATIONS 9438' TO TO 9215' AT 5342 PSI 11 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 3343 PSI. F.G. .79...5 MINUTE 3235 PSI. 10 MINUTE 3164 PSI. TREAT STAGE 6... AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH 3000# 100 MESH IN .5 PPG STAGE AND 150010 30/50 TLC IN .5,1,2,3# STAGES.ISDP 3965PSI. AVG RATE 74.4 BPM. AVG PSI 4500 PSI. MAX PSI 5778 PSI. FLUID TO RECOVER 3777 BBLs SWI TURN OVER TO WIRELINE
	17:40 18:57	1.28	STG07	21		P		STAGE 7; SET COMPOSITE FRAC PLUG AT 9197' PRESSURE ON WELL 3500 PSI PERFORATE STAGE 7 PERFORATIONS 9182' TO 8947', 23 NET FEET 63 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3300 PSI ALL PERFORATIONS CORRELATED TO THE CUTTERS RADIAL CEMENT BOND GAMMA RAY/CCL TEMP LOG RUN 1 18-FEB-2015
	18:57 20:15	1.30	STG07	35		P		STAGE 7; PRESSURE TEST LINES TO 9780 PSI. OPEN WELL. SICP 3200 PSI. BREAK DOWN STAGE 7 PERFORATIONS 9182' TO 8947' AT 3740 PSI 7 BPM ESTABLISH RATE STEP DOWN RATE IN 4 STEPS ISDP 3479 PSI. F.G. .81...5 MINUTE 3307 PSI. 10 MINUTE 3232 PSI. TREAT STAGE 7.. AS PER PROCEDURE W/ 5000 GAL 15% HCL ACID FLUSH 3000# 100 MESH IN .5 PPG STAGE AND 150040 30/50 TLC IN .5,1,2,3# STAGES.ISDP 3357 PSI. AVG RATE 74.9 BPM. AVG PSI 4370 PSI. MAX PSI 5556 PSI. FLUID TO RECOVER 3834 BBLs. SECURE WELL 1ST HRC CLOSED AND LOCKED 2ND HRC CLOSED AND LOCKED 7" MASTER VALVE SHUT 7" CSG VALVE CLOSED w NIGHT CAPS FLOW CROSS VALVES CLOSED w NIGHT CAPS 9 5/8" CSG VALVE CLOSED BALL VALVE CLOSED
	20:15 22:00	1.75	RDMO	02		P		RIG DOWN MOL W/ WEATHERFORD FRAC EQUIPMENT
3/1/2015	6:00 13:00	7.00	CTU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; COIL TBG OPERATIONS...MIRU M/U TOOLS FILL REAL FUNCTION TEST TOOLS TEST LUBRICATOR FLOW BACK LINES

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	13:00 22:10	9.17	CTU	10		P		OPEN WELL 2400 PSI TIH DRILL CBP C/O TO 10994' PBDT CTMD CIRC WELL CLEAN TOH w COIL TBG L/D TOOLS
	22:10 0:00	1.83	RDMO	02		P		RDMO TOP HCR CLOSED AND LOCKED w NIGHT CAP OPEN WELL AT 2300 HRS 2300 PSI ON A 12/64 CHOKE WELL FLOWING TO FLOW BACK TANK TRUN WELL OVER TO FLOW BACK CREW
	0:00 6:00	6.00	FB	17		P		FLOW BACK WELL 0 BBLS OF OIL 245 BBLS OF WATER 0 MCFD 12/64 CHOKE 2300 PSI
3/2/2015	6:00 6:00	24.00	FB	17		P		FLOW BACK WELL 0 BBLS OF OIL 933 BBLS OF WATER 0 MCFD 12/64 CHOKE 2150 PSI
3/3/2015	6:00 7:00	1.00	FB	17		P		FLOW BACK WELL 155 BBLS OF OIL 535 BBLS OF WATER 147 MCFD 12/64 CHOKE 2050 PSI
3/4/2015	6:00 7:00	1.00	FB	17		P		FLOW BACK WELL 226 BBLS OF OIL 466 BBLS OF WATER 199 MCFD 12/64 CHOKE 1925 PSI
3/5/2015	6:00 7:00	1.00	FB	17		P		FLOW BACK WELL 241 BBLS OF OIL 471 BBLS OF WATER 247 MCFD 12/64 CHOKE 1800 PSI
3/6/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS
	7:00 11:45	4.75	WLWORK	27		P		MIRU WIRELINE P/U 4" GAUGE RING THAW OUT WELL HEAD TIH w GAUGE RING TO 8980' TOH L/D GAUGE RING P/U WIRELINE SET PKR TIH SET AT 8910' TOH R/D WIRELINE START BLEEDING OFF WELL
	11:45 13:30	1.75	WOR	16		P		N/D FRAC STACK N/U 10K BOPE
	13:30 15:00	1.50	MIRU	01		P		HSM WRITE AND REVIEW JSA TOPIC; RIGGING UP MIRU RIG
	15:00 18:00	3.00	WOR	30		P		P/U ON/OFF TOOL TIH w 5-JTS OF 2 3/8" TBG CHANGE HANDLING TOOLS XO TO 2 7/8" TBG CONTINUE w 188 JTS OF 2 7/8" TBG SECURE WELL 10K PIPE RAMS CLOSED AND LOCKED TIW VALVE w NIGHT CAP 9 5/8" CLOSED w BULL PLUG AND NIDDLE VALVE 7" CAG CLOSED w NIGHT CAP EOT 6362
3/7/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; TRIPPING TBG
	7:00 9:00	2.00	WOR	39		P		CSIP 0 PSI TSIP 0 PSI CONTINUE TIH w 80 JTS OF 2 7/8" TBG
	9:00 9:30	0.50	WOR	13		P		SPACE OUT PKR w 10, 8, 6, 4, 2 7/8" TBG SUB
	9:30 12:00	2.50	WOR	06		P		R/U PUMP AND LINE ESTABLISH CIRC 100 BBLS CIRC PKR FLUID w 350 BBLS
	12:00 15:00	3.00	WOR	16		P		LAND TBG w BACK PRESSURE VALVE N/D 10K BOPE AND 7" FRAC VALVE REMOVE BACK PRESSURE VALVE AND 6' TBG SUB LAND TBG ON HANGER w 15K TENSTION ON PKR N/U WELL HEAD PLUM INTO FACILITIES TEST 7" CSG AND LINES TO FACILITIES TEST WELL HEAD GOOD PUMP OUT PLUG AT 3800 PSI PUMP 5 BBLS OF 2% KCL WATER TURN WELL OVER TO FLOW BACK 1760 PSI ON A 12/64 CHOKE
	15:00 17:30	2.50	RDMO	02		P		RDMO ROAD RIG TO THE 4-14B3
	17:30 17:30	0.00	FB	17		P		FLOW BACK WELL 206 BBLS OF OIL 279 BBLS OF WATER 127 MCFD 12/64 CHOKE 1950 PSI
3/8/2015	6:00 6:00	23.00	FB	17		P		FLOW BACK WELL 553 BBLS OF OIL 416 BBLS OF WATER 276 MCFD 12/64 CHOKE 1900 PSI TRANSFER 321 BBLS OF OIL FROM FRAC TANK
3/9/2015	6:00 6:00	24.00	FB	17		P		FLOW BACK WELL 272 BBLS OF OIL 542 BBLS OF WATER 261 MCFD 14/64 CHOKE 1700 PSI
3/10/2015	6:00 6:00	24.00	FB	17		P		FLOW BACK WELL 272 BBLS OF OIL 533 BBLS OF WATER 292 MCFD 14/64 CHOKE 1600 PSI

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